DOCUMENT RESUME

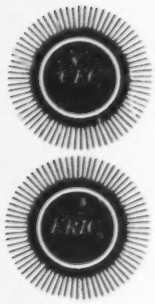
ED 069 068 EC 050 143

TITLE	Aurally Handicapped -- Research; A Selective Bibliography. Exceptional Child Bibliography Series No. 625.
INSTITUTION	Council for Exceptional Children, Arlington, Va. Information Center on Exceptional Children.
SPONS AGENCY	Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
PUB DATE	Aug 72
NOTE	31p.
AVAILABLE FROM	The Council for Exceptional Children, 1411 S. Jefferson Davis Highway, Arlington, Virginia 22202
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Abstracts; *Annotated Bibliographies; *Audiology; Auditory Tests; *Aurally Handicapped; Deaf Interpreting; *Exceptional Child Research; Hearing Aids; Hearing Therapy; Manual Communication

ABSTRACT

The selected bibliography of research on aurally handicapped children contains approximately 95 abstracts with indexing information explained to be drawn from the computer file of abstracts representing the Council for Exceptional Children Information Center's complete holdings as of August, 1972. Abstracts are said to be chosen using the criteria of availability of document to user, currency, information value, author's reputation, and classical content. Preliminary information explains how to read the abstract (a sample abstract is included which identifies the different parts of the abstract), how to use the author and subject indexes, how to purchase documents through the Educational Resources Information Center Document Reproduction Service (an order blank is provided), an order blank for Exceptional Child Education Abstracts in which the abstracts are originally published, a list of indexing terms searched to compile the bibliography, and a list of journals from which articles are abstracted for the bibliography. Publication date of documents abstracted ranges from 1963 to 1971. (CB)

ED 069068



AURALLY HANDICAPPED—RESEARCH

A Selective Bibliography

August, 1972

CEC Information Center on Exceptional Children
An ERIC Clearinghouse
The Council for Exceptional Children
Jefferson Plaza, Suite 900
1411 S. Jefferson Davis Highway
Arlington, Virginia 22202

Exceptional Child Bibliography Series No. 625

The work presented or reported herein was performed pursuant to a grant from the Bureau of Education for the Handicapped, US Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the US Office of Education and no official endorsement by the US Office of Education should be inferred.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

EC 050 143E

The CEC Information Center on Exceptional Children

With a grant from the US Office of Education, the CEC Information Center was established at The Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods, curriculum, etc. for the field of special education. The Center functions as the Clearinghouse on Exceptional Children in the Educational Resources Information Centers (ERIC) program and also as a member center in the Special Education IMC/RMC Network. In addition, the CEC Center's program includes a commitment to a concentrated effort towards the development of products which will interpret research results into educational methods and practices.

How to Use This Bibliography

The *Exceptional Child Bibliography Series* was initiated by the CEC Information Center to answer the need for rapid responses to specific requests for information. The volume of information requests received by the Center is analyzed and used as a guide in preparing special topic bibliographies in the field of exceptional child education. Abstracts contained in the bibliographies are drawn from the computer file of abstracts which represents the CEC Information Center's complete holdings as of the date indicated on each bibliography.

Selective editing by Information Specialists is performed on each bibliography. From the total number of abstracts drawn from the file on a particular topic, selection is made of only those judged to best meet the following criteria: availability of the document to the user, currency, information value, author's reputation, and classical content. The number of abstracts selected to appear in a bibliography may vary from one to 100, depending on the amount of suitable information available. Updating of bibliographies as new material becomes available is accomplished when the volume of new material reaches 25 percent of presently available material on a given topic.

How to Read the Abstract

Each abstract contains three sections–bibliographic data, descriptors, and a summary of the document. The bibliographic section provides the document's identifying number (ED and/or EC), publication date, author, title, source, and availability. The descriptors indicate the subjects with which a document deals. The summary provides a comprehensive overview of the document's contents and in some cases document availability is announced here.

How to Use the Indexes

Some bibliographies in *Exceptional Children Bibliography Series* contain author and/or subject indexes. In these bibliographies, readers seeking work on a specific aspect of the general topic may consult the subject index to be referred to specific abstract numbers. Abstracts dealing with several topics may be identified by finding the same abstract number under two or more subjects in the subject index.

How to Purchase Documents

Documents with an ED number and EDRS availability indicated may be purchased from the ERIC Document Reproduction Service (EDRS). For your convenience an order form is provided on the back cover of this bibliography.

Abstracts appearing in the bibliographies have also been published in *Exceptional Child Education Abstracts*, the quarterly abstract publication of the Council for Exceptional Children. Approximately 750 abstracts covering the broad range of exceptionality appear in each issue. (Subscription order form below.)

(Make checks payable to) **EXCEPTIONAL CHILD EDUCATION ABSTRACTS** | The Council for Exceptional Children
1411 S. Jefferson Davis Highway, Jefferson Plaza, Suite 900, Arlington, Virginia 22202

Please enter my order for subscription(s) to Exceptional Child Education Abstracts.

Back Volumes Available:
Volume I (5 issues)
Volume II (4 issues)
Volume III (4 issues)

_____ Institutional Subscriptions Vol. IV (4 issues)—$50
_____ Supplementary Subscriptions *(will be shipped to address below)*—$25 each
_____ Back Volumes for Institutions—$40 each
_____ Eligible for individual subscriptions—$35 each
_____ Back Volumes for individual subscribers—$35 each
_____ Eligible for individual CEC member rate—$25 each
_____ Back Volumes for CEC members—$25 each

☐ Check enclosed ☐ Please bill me ☐ My P.O. No. is _____
☐ I want information on ECEA and other CEC publications

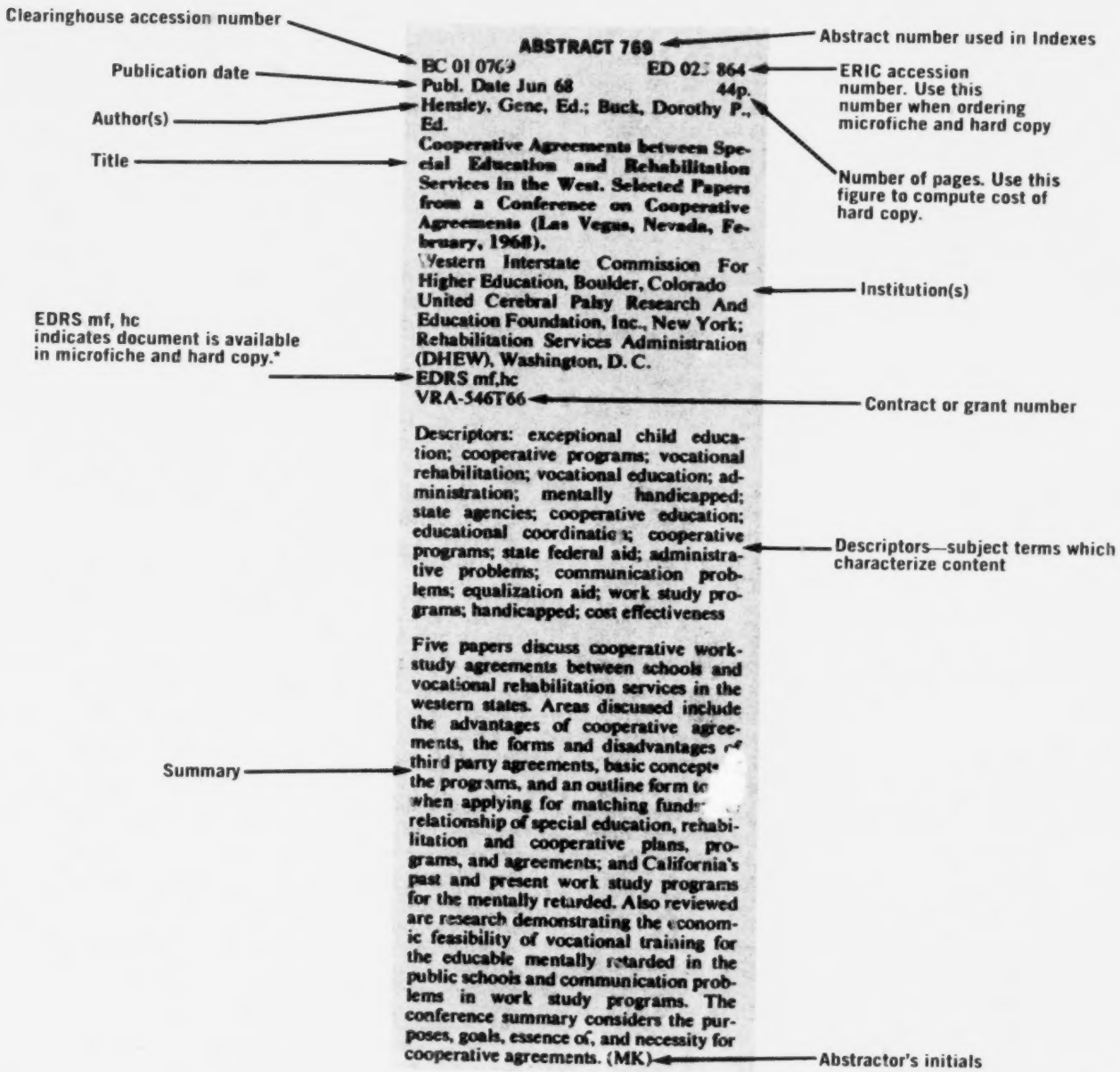
Institution _____

Name _____

Address _____

_____
City **State** **Zip**

Sample Abstract Entry


Clearinghouse accession number
ABSTRACT 769
Abstract number used in Indexes
Publication date
BC 01 0769
ED 023 864
Publ. Date Jun 68
44p.
ERIC accession number. Use this number when ordering microfiche and hard copy
Author(s)
Hensley, Gene, Ed.; Buck, Dorothy P., Ed.
Title
Cooperative Agreements between Special Education and Rehabilitation Services in the West. Selected Papers from a Conference on Cooperative Agreements (Las Vegas, Nevada, February, 1968).
Number of pages. Use this figure to compute cost of hard copy.
Western Interstate Commission For Higher Education, Boulder, Colorado
United Cerebral Palsy Research And Education Foundation, Inc., New York;
Rehabilitation Services Administration (DHEW), Washington, D. C.
Institution(s)
EDRS mf, hc
indicates document is available in microfiche and hard copy.*
EDRS mf,hc
VRA-546T66
Contract or grant number
Descriptors: exceptional child education; cooperative programs; vocational rehabilitation; vocational education; administration; mentally handicapped; state agencies; cooperative education; educational coordination; cooperative programs; state federal aid; administrative problems; communication problems; equalization aid; work study programs; handicapped; cost effectiveness
Descriptors—subject terms which characterize content
Five papers discuss cooperative work-study agreements between schools and vocational rehabilitation services in the western states. Areas discussed include the advantages of cooperative agreements, the forms and disadvantages of third party agreements, basic concepts of the programs, and an outline form to be used when applying for matching funds; the relationship of special education, rehabilitation and cooperative plans, programs, and agreements; and California's past and present work study programs for the mentally retarded. Also reviewed are research demonstrating the economic feasibility of vocational training for the educable mentally retarded in the public schools and communication problems in work study programs. The conference summary considers the purposes, goals, essence of, and necessity for cooperative agreements. (MK)
Summary
Abstractor's initials

*NOTE: EDRS mf indicates microfiche reproduction only.

INDEXING TERMS SEARCHED

Indexing terms used to retrieve information on *Aurally Handicapped–Research* from the Center's computer file of abstracts are listed alphabetically below:

Audiometric Tests
Audition
Auditory Evaluation
Auditory Tests
Aurally Handicapped
Cued Speech
Deaf
Deaf Education
Deaf Interpreting
Exceptional Child Education
Exceptional Child Research
Finger Spelling
Hard of Hearing
Hearing Aids
Hearing Loss
Hearing Therapists
Hearing Therapy
Manual Communication
Sign Language
Visible Speech

JOURNALS USED

Abstracts of articles from the following periodicals appear in this bibliography.

American Annals of the Deaf
ASHA
Children's House
Exceptional Children
Journal of Auditory Research
Journal of Child Psychology and Psychiatry
Journal of Rehabilitation of the Deaf
Journal of School Health
Journal of Special Education
Journal of Speech and Hearing Disorders
Journal of Speech and Hearing Research
Laryngoscope
Teacher of the Deaf
TEACHING Exceptional Children
Volta Review

The abstracts in this bibliography were selected from *Exceptional Child Education Abstracts*, Volumes I-III.

ABSTRACTS

ABSTRACT 10082

EC 01 0082 ED 012 987
Publ. Date 66 195p.
Rainer, John D.; Altshuler, Kenneth Z.
Comprehensive Mental Health Services for the Deaf.
New York St. Psychiatric Inst., New York., Dept. Med. Genetics.
RD-1197
EDRS mf,hc

Descriptors: exceptional child research ; aurally handicapped; deaf; mental illness; mental health clinics; psychiatric services; children; adolescents; adults; medical treatment; occupational therapy; research needs; program descriptions; program evaluation; job placement; case studies (education); demonstration projects; mental health; psychiatric hospitals; medical evaluation; clinical diagnosis; group therapy; psychological services

A 3-year pilot project designed to demonstrate the value and feasibility of providing comprehensive mental health (psychiatric) services for the deaf established a clinical unit for the deaf with inpatient, outpatient, and aftercare services. The clinic served 59 patients (minimum age 16) in the wards and 96 patients (all ages) in the outpatient service during this period. All clinic personnel were trained in manual communication and this facilitated diagnoses and treatment of the patients. Group therapy was found to be a very effective procedure with deaf patients. Occupational therapy and vocational placement services were provided in some cases. This program enabled discharge of almost 50 percent of the ward patients and facilitated improvement in one-fourth to one-third of the outpatients. The success of this project led to permanent establishment of the mental health clinic for the deaf. Important areas for future research are the development of techniques for preventive psychiatry and an exploration of the problems of rehabilitation for the deaf, especially the need for halfway homes. Case histories are presented as are protocols of the group therapy sessions. Figures, tables, charts, record forms, and operating procedures are available in the appendix. A 95-item bibloiography is included. (RS)

ABSTRACT 10206

EC 01 0206 ED 018 016
Publ. Date 63 279p.
Rainer, John D., Ed. And Others
Family and Mental Health Problems in a Deaf Population.
New York St. Psychiatric Inst., New York, Dept. Med. Gen.
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; demography; genetics; etiology; deaf; intelligence tests; family relationship; socialization; vocational adjustment; educational background; achievement; crime; siblings; psychological testing; psychotherapy; psychiatric services; psychiatric hospitals; schizophrenia; research needs; state surveys; statistical surveys; mental health planning; Mental Health Project for the Deaf; New York

The final report of the Mental Health Project for the Deaf is presented. Following an explanation of the project and its procedures and an historical review of special education and mental health services are reports (by individual authors) of the research program within the New York State deaf population. The reports consider (1) methodological aspects--sampling procedures, (2) demographic aspects--number, distribution, marriage, and fertility statistics, (3)genetic aspects of early total deafness, (4) intelligence tests in deaf twins, (5) sexual patterns and family relationships, (6)patterns of socialization and community integration, (7) educational background and vocational adjustment, (8) deaf persons of outstanding achievement, and (9) delinquency and crime. Work on psychiatric considerations of the clinical outpatient program treats (1) operational description of a pilot clinic, (2) psychological testing--development and practice, (3) Rorschach data and clinical observations, and (4) psychotherapy for the deaf. For the clinical inpatient program, psychiatric considerations studied are (1) distribution and diagnosis of patients in New York State mental hospitals and (2) deafness and schizophrenia--a family study. Conclusions and recommendations made by the project treat (1) preventive mental health planning, (2)clinical management of deaf psychiatric patients, (3) areas for continued research, and (4) main findings and some projections. Graphs and tables appear throughout. A bibliography lists 253 items. This document is available from the Department of Medical Genetics, New York Psychiatric Institute, New York, New York. (JD)

ABSTRACT 10310

EC 01 0310 ED 017 116
Publ. Date Sep 66 58p.
Withrow, Frank B.; Lisensky, Robert
The Development of a Sex Education Curriculum for a State Residential School for the Deaf.
Illinois School For The Deaf, Jacksonville
OEG-32-23-0000-1030
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; curriculum; sex education; educational programs; curriculum development; residential schools; deaf; children; curriculum research; curriculum planning; curriculum design; state schools; elementary grades; instructional materials; secondary grades; adolescents; evaluation; curriculum evaluation; program evaluation; teacher workshops; information dissemination; tests; pretesting; post testing

To counteract the negative attitudes and abnormal atmosphere among deaf children in residential schools, a sex education curriculum was developed by a study group composed of teachers of the deaf, social hygiene personnel, and a sociologist. A control group was obtained from the Indiana School for the Deaf matching factors such as age, sex, achievement, and IQ with an experimental group from the Illinois School for the Deaf. The K-12 sex education curriculum was presented to the experimental group. Films and existing materials were adapted for use with the deaf whenever possible. Classes were mixed rather than separated by sex. The class on the elementary level (ages 6 to 11) focused on family relationships and growth patterns, the adolescent class (ages 12 to 15) dealt with the concepts of entering adolescence and becoming adult, and the high school level (ages 16 to 18) focused on preparation for and acceptance into adult society. A pretest and a posttest were given. The adolescent and high school test was designed to measure information and attitudes covered in the materials developed in the social and personal hygiene curriculum guides. The test for the elementary groups was designed as a nonverbal pictorial test. The experimental group of adolescents and the experimental high school age group scored significantly better (.01 level of confidence) on the posttest than the control group. Testing material may have contributed to the lack of significant difference on the elementary level. The materials and curriculum were evaluated and revised for general distribution by a study group after the experiment. The results of the experiment were also disseminated in a series of workshops. Suggestions for aiding other schools in establishing sex education programs are provided, including an inservice training program for both the academic and residential staffs and participation by the community and the parents. Sample tests, questionnaires, and responses are included. (AA JD)

ABSTRACT 10547

EC 01 0547 ED 023 248
Publ. Date Sep 68 26p.
Ross, Mark; Lerman, Jay

A Picture-Identification Test for Hearing-Impaired Children. Final Report.
Connecticut University, Storrs
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-1-7-008038-0504
BR-7-8038

Descriptors: exceptional child research; aurally handicapped; tests; identification; hard of hearing; nonverbal tests; auditory discrimination; test reliability; correlation; word recognition; word lists; test results; deaf

The Word Intelligibility by Picture Identification Test (WIPI) was developed to measure speech discrimination ability in hearing impaired children. In the first phase of development, the word stimuli were evaluated to determine whether they were within the recognition vocabulary of 15 hearing impaired children (aged 6 to 12) and whether the pictorial representations of the words were adequate. The test was revised prior to the second phase to consist of 25 plates with six pictures on each plate, with only four of the pictures on each plate utilized as test stimuli. These four lists were given to 61 hearing impaired children (a mean age of 10-2 with a range from 4-7 to 13-9 years; a hearing level in excess of 30 decibels at one or more of the speech frequencies; and an average speech threshold of 52.2 decibels) on two separate occasions. There was a learning effect (p less than .01) for three of the lists in the 1- to 3-week interval between tests. The results indicate reliability coefficients in excess of .87 for all four lists, with mean differences of less than 3% and correlation coefficients between lists greater than .84. (Author/JD)

ABSTRACT 10561

EC 01 0561 ED 023 203
Publ. Date Jan 68 196p.
Quigley, Stephen P.; And Others
Deaf Students in Colleges and Universities.
Illinois University, Urbana, Institute For Research On Exceptional Children
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS not available
RD-1299S
Alexander Graham Bell Association For The Deaf, Inc., The Volta Bureau, 1537 35th Street, N. W., Washington, D. C. 20007 ($6.50).

Descriptors: exceptional child research; aurally handicapped; deaf; hard of hearing; college attendance; graduate surveys; evaluation methods; case records; questionnaires; college graduates; college students; achievement; adjustment (to environment); academic achievement; occupations; professional occupations; social adjustment; grades (scholastic); Gallaudet College

In order to determine problems encountered and factors relating to successful attendance of deaf students at regular colleges, a self administered questionnaire was mailed to 992 persons. The 653 usable responses were divided into five groups for comparative analysis: Group A, those who graduated from a regular college (224); Group B, those who did not graduate (131); Group C, those still in college (161); Group D, those who transferred from a regular college to Gallaudet (39); and Group E, those graduates of Gallaudet who later attended regular graduate schools (98). Subjects in Groups A and E were highly successful in terms of academic and professional accomplishments, were in professional occupations, and were well adjusted in their marital and social lives. Groups B and D's lower grades in college than Groups A and E seemed to be the major factor in termination or transfer to Gallaudet from regular colleges. In contrast to the graduates, Group C, still in college, used hearing aids more, had more home training and parental encouragement to attend college, and had grades comparable to Group B. Recommendations are given and 79 tables are included. (SN)

ABSTRACT 10644

EC 01 0644 ED 024 207
Publ. Date Jun 68 98p.
Haspiel, George S.; Siegenthaler, Bruce M.
Evaluation of Two Measures of Speech Hearing for Hearing Impaired Children. Final Report.
Pennsylvania State University, University Park, Speech And Hearing Clinic

Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-32-48-0720-6012
BR-6-1159

Descriptors: exceptional child research; aurally handicapped; tests; test results; test reliability; test validity; auditory tests; auditory evaluation; evaluation techniques; hard of hearing; hearing loss; auditory discrimination; correlation; auditory visual tests; testing; Threshold by Identification of Pictures Tests; TIP; Discrimination by Identification of Pictures Test; DIP

The Threshold by Identification of Pictures (TIP) Test and the Discrimination by Identification of Pictures (DIP) Test were evaluated. Test cards used pictures of items from the first 500 words of Basic Vocabulary for Elementary Children, and the children pointed to the article named. After each item, the tester's voice was reduced 5 decibels. In the DIP test, pictures were arranged in rhymed pairs with a distinction in consonants between the two word items. Of the 202 subjects, a random selection of 138 was used for final data analysis. Subjects were grouped by year (age range 4-10 to 12-10 years), had an IQ over 90, and included a variety of degrees, types, and patterns of hearing loss. All were screened for significant visual, neurological, motor, and emotional problems. It was concluded that the TIP and DIP tests were satisfactory measures, with a threshold correlation of .88 to .98 with pure tone thresholds for the TIP test and a test reliability of .60 to .84 for the DIP test. Twenty-six references and 21 tables are given. (Author/SN)

ABSTRACT 10928

EC 01 0928 ED 026 772
Publ. Date Oct 67 14p.
Luterman, David M.
A Parent-Centered Nursery Program for Preschool Deaf Children. Interim Report.
Emerson College, Boston, Massachusetts
Office Of Education (HEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-1-6-062069-1591
BR-6-2069

Descriptors: exceptional child research; aurally handicapped; parent education; preschool children; parent participation; hearing therapy; language development; deaf; group discussion; tutoring; behavior change; parent attitudes; speech instruction; staff orientation; evaluation needs; counseling instructional programs; Tracy Correspondence Course

To try to produce more capable deaf children through early parental education, eight families participated in a 2-semester program. Parents observed the children, age 18 months to 3 1/2 years, receiving language stimulation in free plah in a nursery and observed individual therapy based on the Tracy Correspondence Course. Non-directive group meetings encouraged parents to find their own solutions to problems. Therapists met with parents to discuss the goals and techniques of therapy; parents administered therapy first to another child and then to their own. Lecture type and fathers only meetings were also held. Evaluation of program success based on staff observations indicated growth and change in all of the children and in many parents. Almost all children were lipreading, using speech meaningfully, and performing better in social and play situations. Parents seemed to be helped in resolving their intitial confusion, in getting the problem of having a deaf child into perspective, in recognizing that the child was primarily language handicapped, and in appreciating the job of the therapist. (RP)

ABSTRACT 11042

EC 01 1042 ED N.A.
Publ. Date Jan 68 12p.
Meadow, Kathryn P.

Early Manual Communication in Relation to the Deaf Child's Intellectual, Social, and Communicative Functioning.

California University, Berkeley

Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS not available
American Annals Of The Deaf; V113 N4 P29-41 Jan 1968

Descriptors: exceptional child research; aurally handicapped; communication (thought transfer); family (sociological unit); deaf; academic achievement; cognitive ability; social maturity; interpersonal competence; lipreading; speech skills; manual communication

To determine possible differences of levels of intellectual and social functioning and of communicative competence, 59 deaf children of deaf parents (mean IQ 111.5, 80% with a hearing loss greater than 80 decibels) were paired by sex, age, intelligence, and family size and occupation with 59 deaf children of hearing parents (mean IQ 108.9, 71% with hearing loss greater than 80 decibels). Differences favoring the deaf children of deaf parents were found in the following areas: the Stanford Achievement Test scores in reading, arithmetic, and overall grade level (p less than .01); teacher-counselor ratings for intellectual ability and use of ability (p less than .01) and for working hard (p equals .07); ratings for maturity, responsibility, independence, friendliness, and popularity (p less than .01); ratings of enjoyment of new experiences, responding with appropriate emotion, and showing appropriate sex-role behavior (p less than .05); and comparisons of facility with written language, receptive and expressive fingerspelling, and use of sign language (p less than .01). No differences between children of deaf parents and children of hearing parents were found on ratings of speechreading and speech. Indications were that those children most likely to be judged as having good communicative skills were those exposed to both oral and manual training at an early age. (GD)

ABSTRACT 11154

EC 01 1154 ED 016 335
Publ. Date 66 8p.
Hiskey, Marshall S.
A Summary Report on the Revision and Restandardization of the Hiskey-Nebraska Test of Learning Aptitude.
Nebraska University, Lincoln, Educational Psychology Clinic
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS mf,hc
VRA-RD1173-S

Descriptors: exceptional child research; aurally handicapped; tests; deaf; aptitude tests; intelligence tests; individual tests; test reliability; test validity; Hiskey Nebraska Test of Learning Aptitude; HNTLA

The revision of the Hiskey-Nebraska Test of Learning Aptitude (H-NTLA) was undertaken to modernize the test materials, to extend the test, and to provide up to date norms on deaf subjects and hearing subjects. The items considered for the revision were administered to normal hearing, deaf, and retarded subjects aged 3 to 17 years. Following the analysis, the retained items were grouped into 12 power subtests. Final samples contained 1,079 deaf children, mostly from schools for the deaf, and 1,074 hearing children, selected on the basis of parental occupation, over a 10-state area. Information is provided concerning normative, reliability, and validity data, and the performances of deaf and hearing children on other tests and on the H-NTLA. (MK)

ABSTRACT 11264

EC 01 1264 ED N.A.
Publ. Date Sep 65 23p.
Craig, Helen B.
A Sociometric Investigation of the Self-Concept of the Deaf Child.
EDRS not available
American Annals Of The Deaf; V110 N4 P456-78 Sept 1965

Descriptors: exceptional child research; aurally handicapped; adjustment (to environment); personality; tests; deaf; self concept; self image, environmental influences; self esteem; self evaluation; peer relationship; test results; sociometric techniques; personality assessment

A study, to determine whether the deaf child's self concept is different from that of the normally hearing child, used 48 subjects from three school populations: an institutional school for the deaf, a day school for the deaf, and a normal public school. A perceptual sociometric test, which compared predicted sociometric ratings with actual ratings to give an index of perceived self, was administered to obtain measurement of self accuracy, self direction, self acceptance, and social expansiveness. Results indicated that deaf groups were significantly lower (p less than .05) than the hearing group in self accuracy, and confirmed the hypothesis that language is essential to the development of self concept. The institutionalized deaf rated themselves higher in self acceptance than the other two groups; there was no significant difference among groups in self direction. Social expansiveness was lowest in the deaf non-institutionalized group and highest in the deaf institutionalized group. It was suggested that the high self acceptance of institutionalized deaf may be a function of their protective environment and that self concept among the deaf might be improved by revising deaf education to broaden language ability and to promote a wider range of experiences. (SN)

ABSTRACT 11272

EC 01 1272 ED N.A.
Publ. Date Mar 68 214p.
Pickett, J. M., Ed.
Proceedings of the Conference on Speech-Analyzing Aids for the Deaf (Gallaudet College, Washington, D.C., June 14-17, 1967).
Gallaudet College, Washington, D. C., Graduate School
EDRS not available
American Annals Of The Deaf; V113 N2 P116-330 Mar 1968

Descriptors: exceptional child research; aurally handicapped; speech handicapped; conference reports; deaf; hard of hearing; speech; automation; speech therapy; programed instruction; auditory discrimination; sensory aids; hearing aids; electromechanical aids; hearing loss; speech pathology; visible speech; lipreading; auditory tests

Twenty-three conference papers and two discussions explore current work in speech science, phonetics, and automated training. Technical aids for training children, visual aids for speech correction, and correction of voice pitch in severely hard of hearing children are considered. Papers on speech-analyzing aids treat the Bell Translator, eyeglass speech reading, the voice visualizer, the Arthur D. Little phoneme analyzer, an experimental visual speech trainer, an instrument that creates artificial speech spectra, a frequency shift hearing aid, and visual and vibrotactile aids. Other studies explore monosyllabic production by deaf and dysarthric speakers, fundamentals of speech analysis and synthesis hearing capacity, measurement and calculation, synthetic speech in aural rehabilitation, programed instruction, discrimination, frequency transposition, residual hearing, and auditory recoding. (JB)

ABSTRACT 11349

EC 01 1349 ED N.A.
Publ. Date Mar 68 10p.
Vernon, McCay
Current Etiological Factors in Deafness.
Michael Reese Hospital And Medical Center, Chicago, Illinois, Institute For Psychosomatic And Psychiatric Research And Training
Social And Rehabilitation Service (DHEW), Washington, D. C.
EDRS not available
RD-2407-S
American Annals Of The Deaf; V113 N2 P196-15 Mar 1968

Descriptors: exceptional child research; aurally handicapped; etiology; deaf; hearing loss; premature infants; heredity; infectious diseases; rubella; incidence; age differences; hard of hearing; teaching methods

Causes of 1,468 cases of deafness with a hearing loss greater than 65 decibels were investigated. The leading causes of deafness were found to be heredity, prematurity, meningitis, maternal rubella, and the Rh factor; and since four of the five leading causes are also major etiological factors in brain damage, neurophysiological residua might explain many of the learning and behavioral handicaps present in deaf youth. In

30.4% of the cases the cause was unknown, and in 32.3% another or dubiously valid etiology was given. The high prevalence of premature birth (17.5%) was triple the expected figure. The present school age population was found to be about 5% post-lingually deaf in contrast to 40% in years past. However, the percentage of cases of unknown or nebulously determined causSs of deafness was too high (over one-third) to permit an effective prevention program. (JB)

ABSTRACT 11437

EC 01 1437 ED N.A.
Publ. Date Mar 69 8p.
Doehring, Donald G.; Rosenstein, Joseph

Speed of Visual Perception in Deaf Children.

EDRS not available
Journal Of Speech And Hearing Research; V12 N1 P118-25 Mar 1969

Descriptors: exceptional child research; aurally handicapped; visual perception; deaf; testing; visual stimuli; sight vocabulary; intelligence level; age differences; time factors (learning)

A test of visual perceptual speech was administered to 50 deaf and 50 hearing children equated in age, sex, and Performance IQ. The test included 13 subtests varying in stimulus complexity and verbal content. In each subtest the subject was required to identify and underline the correct stimulus, which was interspersed among similar stimuli, as rapidly as possible. The hearing children scored significantly higher on 9 of the 13 subtests; older children scored significantly higher on all subtests; and there was a significant interaction between age and hearing status on only one subject. Correlations between subtest scores, reading vocabulary, and Performance IQ were also calculated. The results were discussed in terms of the specific task requirements of the visual perceptual speed tests. It was concluded that deficits of visual perception in deaf children should be interpreted in relation to age, education, language development, and reading achievement of the populations studied. (Author)

ABSTRACT 11519

EC 01 1519 ED 029 419
Publ. Date Jul 68 33p.
Lowell, Edgar L.

Home Teaching for Parents of Young Deaf Children. Final Report.

John Tracy Clinic, Los Angeles, California
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf,hc
OEG-32-14-0000-1014
BR-5-0362

Descriptors: exceptional child research; aurally handicapped; parent education; teaching methods; program evaluation; preschool children; deaf; language instruction; rating scales; tutoring; parent attitudes; language development; speech clinics; Boone Infant Speech and Language Development Scale; John Tracy Clinic

To explore and evaluate the feasibility of providing language instruction to parents of young deaf children in a home-like environment, a demonstration home was established at a clinic. Parents were invited to attend weekly meetings which were reduced to 1/2 hour in length during the course of the project. Parents could bring other siblings, family members, and materials from their own home. A single tutor worked with each family in separate rooms in language building activities. Fifty-two families who visited the demonstration home for 10 weekly visits were compared with 25 families who were enrolled in the John Tracy Clinic traditional service program. Language development in the children was assessed with the Boone Scale and changes in the parents' information and attitudes were assessed by scales previously developed at the Clinic. The language scales were too unreliable to be satisfactory, but all showed substantial gains for the demonstration home children. The parent information scores showed that the demonstration home parents did slightly better than the control group of parents. There was no change in the parent attitude scales. Experience with the program was judged so satisfactory by the staff of John Tracy Clinic that the program is being continued as a Clinic function after the expiration of federal grant and has been extended to two similar branch programs. (RJ)

ABSTRACT 11539

EC 01 1539 ED 029 441
Publ. Date Dec 65 280p.
Stewart, Joseph L.

Effectiveness of Educational Audiology on the Language Development of Hearing Handicapped Children. Final Report.

Denver University, Colorado
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEC-SAE-8966 CRP-969
BR-5-0377

Descriptors: exceptional child research; aurally handicapped; preschool children; auditory training; testing; hearing aids; parent counseling; multisensory learning; language development; articulation (speech); nursery schools; hard of hearing; program evaluation; parent participation; speech skills; group therapy; preschool programs

Two groups of hard of hearing children entered educational audiology programs between the ages of 6 to 42 months. Of these, 12 children in a unisensory program (U-) and 16 in a multisensory program (M-) were evaluated for speech and language development after they had reached their fifth birthdays. Children in the experimental U-group were first tested for hearing and fitted with an aid, then were given auditory training at home and group therapy sessions. At age 3, they were evaluated for placement in an enriched nursery school program, which also trained them primarily through the auditory sense. Guidance and psychological counseling were provided for the parents. Results indicated that the U-group was markedly superior on all measures of speech and language acquisition, although less so on the Templin-Darley articulation test. On all other measures (mean length of responses, mean of five longest responses, number of one-word responses, number of different words, and structural complexity score), results for the U-group appeared to indicate the advisability of unisensory management. Findings suggested that U-management may be of most benefit to children whose residual hearing extends into the high frequencies and whose hearing losses are relatively flat. (JD)

ABSTRACT 11553

EC 01 1553 ED N.A.
Publ. Date Jan 67 10p.
Vernon, McCay

Prematurity and Deafness: The Magnitude and Nature of the Problem Among Deaf Children.

EDRS not available
Exceptional Children; V33 N5 P289-98 Jan 1967

Descriptors: exceptional child research; aurally handicapped; hearing loss; premature infants; hard of hearing; deaf; multiply handicapped; etiology; intelligence; academic achievement; minimally brain injured; neurological defects; audiometric tests; emotional adjustment; Bender Gestalt Test; Diagnostic Screening Form for Detection of Neurological Impairment in Deaf Children

To investigate the relationship between prematurity and deafness, 1,468 deaf or profoundly hard of hearing children (ages 3 to 21 years) were studied. Of these, 257 children had a birth weight of 5 pounds, 8 ounces, or less, and prematurity was the only known cause in 175 of the 257 cases. As birth weight dropped, IQ diminished appreciably (below 3 pounds, 4 ounces, the mean IQ was below 80). Data based on the Stanford Achievement Test scores, school records, and teacher evaluations indicated that these children achieved at half the rate of normally hearing children and two thirds the rate of deaf children of deaf parents. One out of every five of the 175 was essentially unable to be educated. Psychological evaluations, teacher ratings, and school records revealed that one-fourth to one-third of the subjects had severe emotional problems; the Bender Gestalt Test, the screening for the detection of neurological impairment, and audiograms indicated the presence of brain damage. The lower the birth weight, the greater the incidence of multiple handicaps (over

two-thirds of premature deaf children were multiply handicapped) and the more serious the handicap. (AJ)

ABSTRACT 11699

EC 01 1699 ED 030 254
Publ. Date Dec 68 57p.
Restaino, Lillian C. R.

Identification, Assessment and Prediction of Reading Competency in Deaf Children. Final Report.

Lexington School For The Deaf, New York, New York
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-32-42-0000-6032
BR-6-1203

Descriptors: exceptional child research; aurally handicapped; reading ability; reading skills; reading difficulty; abstraction levels; memory; visual discrimination; serial ordering; linguistic competence; tests; visual perception: cognitive processes

To investigate the underlying factors of visal discrimination, memory, rule abstraction, language, and seial ordering in reading success, 79 poor and 65 good deaf readers were administered a battery of tests. Poor readers were deficient in lower-order visual discrimination and memory abilities; higher-order visual discrimination skills were important to success for good readers. Higher-order rule abstraction skills were important for continued progress by the relatively successful readers; however, lower-order rule abstraction was important to successful visual discrimination at initial levels of reading for poor readers as well. Successful rule abstraction was significant at all levels of reading; and visual discrimination (visual search and sequencing) was significant to the advanced reader for the processing of higher-level printed text. Implications were that rule abstraction is important at all levels of the reading process, visual discrimination activities at prereading and higher reading levels should be re-evaluated, and investigation is needed to determine sentence structures that are obstacles to progress beyond intermediate levels of reading. (Author/RJ)

ABSTRACT 11747

EC 01 1747 ED N.A.
Publ. Date Mar 69 4p.
Harrelson, Orvis A. And Others

Comparison of Hearing Screening Methods.

EDRS not available
Journal Of School Health; V39 N3 P161-4 Mar 1969

Descriptors: exceptional child research; aurally handicapped; screening tests; auditory tests; audiometric tests; testing

Data were collected on 603 pupils in grades kindergarten, 1, 2, 3, and 6 for the purpose of comparing proficiency, personnel, and cost factors of three methods of school hearing screening: individual pure tone sweep tests (25 decibels ISO); group pure tone tests; and individual three-tone sweep checks (1,000, 2,000, 4,000 cps at 25 decibels ISO). Results indicated that the three-tone screening method was significantly (.001 level) superior to the other two methods in detecting hearing referrals. Single tone failure was a practical criterion in three-tone testing and was less practical for individual and group screening. The group testing procedure was inferior to the other two in detecting hearing loss and was most costly. Performance of the three-tone technique required least time per pupil, and reliability, cost, ease of handling, and screener preference favored this method. (JB)

ABSTRACT 12043

EC 01 2043 ED N.A.
Publ. Date Sep 69 23p.
Vernon, McCay

Sociological and Psychological Factors Associated with Hearing Loss.

EDRS not available
Journal Of Speech And Hearing Research; V12 N3 P541-63 Sept 1969
Paper Presented At Institute For Aural Rehabilitation (Denver, Colorado, July 1968).

Descriptors: exceptional child research; aurally handicapped; psychological characteristics; social factors; academic achievement; intelligence; communication skills; mental illness; research reviews (publications); employment patterns

Research reviews presented in the following areas reveal these results: the hearing impaired have essentially the same IQ distribution as the general population; the average deaf adult is grossly undereducated; the deaf frequently enter manual labor because of lack of opportunity to engage in appropriate higher level employment; 95% of the deaf marry other deaf persons; deaf adults have formed strong organizations to meet their needs; the deaf are not forced into a hearing or a deaf world but participate in both; impulse control problems and related syndromes are more common among the deaf and there is frequent lack of insight; the major handicap of deafness is impairment of communication; and employment trends suggest a vocational crisis for the deaf which indicates a need for more educational opportunities and aural rehabilitation. (RJ)

ABSTRACT 20287

EC 02 0287 ED N.A.
Publ. Date May 69 7p.
Neuhaus, Maury

Parental Attitudes and the Emotional Adjustment of Deaf Children.

EDRS not available
Exceptional Children; V35 N9 P721-7 May 1969

Descriptors: exceptional child research; aurally handicapped; deaf; parent attitudes; emotional adjustment; adolescents; mother attitudes; parent child relationship; fathers

The parents of 84 deaf children of three age levels (3 to 7, 8 to 12, and 13 to 19) were administered the University of Southern California Parent Attitude Survey and the Attitude Toward Disabled Persons Scale to assess their attitudes toward children and toward disability. Teachers used the Haggerty-Olson-Wickman Behavior Rating Schedules to rate the children's emotional adjustment at school. Results indicated that there is a significant relationship between maternal and paternal attitudes toward children and the child's emotional adjustment at all three age levels, with one exception: the fathers' attitudes toward children between ages 3 to 7. Where parental attitudes differed, the maternal attitude outweighed the paternal attitude in its effect upon the child's emotional adjustment. No significant relationship was found between parental attitudes toward disability and the child's emotional adjustment. Parental attitudes toward children did not vary with the age of the child, while parental attitudes toward disability did. Parents of deaf children were more accepting of disability when their children were young. (Author/LE)

ABSTRACT 20344

EC 02 0344 ED N.A.
Publ. Date Jul 69 10p.
Quigley, Stephen P.

Higher Education for Deaf Persons in Regular Institutions.

EDRS not available
Journal Of Rehabilitation Of The Deaf; V3 N1 P34-43 Jul 1969

Descriptors: exceptional child research; aurally handicapped; college attendance; questionnaires; socioeconomic status; educational background; counseling services

To determine whether deaf persons were successful in attending regular colleges, 5 groups of the deaf (in alphabetical order, those with a B.A., those without, those in attendance at the time of the study, those who began in regular colleges but transferred to Gallaudet, and Gallaudet graduates who attended graduate school in regular institutions) were sent questionnaires. The major results based on 653 acceptable returns were as follows: groups A and E were generally as successful as the general college educated population, but group E came from a lower socio-economic status and attended combined residential schools rather than oral; groups B and D had lower grades throughout their educational careers and group C, being younger, reflected the emphasis of the past 20 years and showed the tendency to use hearing aids; they also received more home training. Conclusions and implications are that those who did not complete the college course were those who were perhaps not as academically capable, that counseling is needed regarding

facilities and colleges available, and that attention should be given to those with moderate hearing impairments. (JM)

ABSTRACT 20505

EC 02 0505 ED N.A.
Publ. Date Aug 66 8p.
Rush, Mary Lou
Use of Visual Memory in Teaching Written Language Skills to Deaf Children.
EDRS not available
Journal Of Speech And Hearing Disorders; V31 N3 P219-26 Aug 1966

Descriptors: exceptional child research; aurally handicapped; language skills; written language; writing skills; programed instruction; retention; programed materials; positive reinforcement; testing; language handicapped

The use of programed material in teaching written intermediate language to deaf children was investigated. Subjects were 38 residential school students, aged 11 to 17 years, with IQ's ranging from 58 to 124 on the Leiter International Performance Scale. The program consisted of 219 frames requiring a total of about 2 hours. The frames were designed to teach such written language as destinations (house, to school, upstairs), various familiar verbs and verb endings (going, walking, to be, is/are), and the definite article (the) with gradually increasing recall necessary. The posttest mean was significantly above the pretest mean (.01 level). Kind and frequency of errors followed the same order on both tests. Retesting of some students at 2 and 4 weeks after the posttest showed no difference in means. Retesting of 12 other students at 10 weeks showed a significant (t equals 2.45) difference in means; however, the mean of retention scores remained significantly above the mean of pretest scores. Indications were that training in short term memory, programed instruction, and positive reinforcement can aid in establishing memory traces for language acquisition. (JM)

ABSTRACT 20973

EC 02 0973 ED 033 513
Publ. Date (68) 222p.
Griffing, Barry L.; Hayes, Gordon M.
Educational Amplification Response Study, E.A.R.S.
California State Department Of Education, Sacramento;
San Diego Speech And Hearing Center, California
Office Of Education (DHEW), Washington, D. C.

Descriptors: exceptional child research; aurally hancicapped; audio equipment; equipment evaluation; electronic equipment; loop induction systems; acoustics; quality control; teacher attitudes; hearing aids; microphones

To obtain an overall view of the auditory training equipment used in California, 27 different models of nine makes of auditory training systems were subjected to an acoustical, quality control, and educational analysis. The test methods used were those of the hearing aid industry. An analysis of questionnaires sent to teachers, speeches by Hyman Goldberg and Richard S. Campbell on amplification systems, definitions used, and procedures followed are provided. Physical descriptions and assessments of quality, performance, and educational suitability are given for each piece of equipment. Recommendations include suggestions that the industry work more closely with schools in designing systems and equipping classes, and that studies should be made at 3-year intervals to assure continuing improvements in educational amplification equipment. Appendixes include the educational questionnaire, a harmonic distortion guide, and a list of the manufacturers. (JM)

ABSTRACT 20974

EC 02 0974 ED 033 514
Publ. Date 69 59p.
Rosenstein, Joseph, Ed.; MacGinitie, Walter H., Ed.
Verbal Behavior of the Deaf Child: Studies of Word Meanings and Associations. TC Series in Special Education.
EDRS not available
Teachers College Press, Columbia University, 525 West 120 The Street, New York, New York 10027.

Descriptors: exceptional child research; aurally handicapped; language ability; associative learning; age differences; word recognition; testing; vocabulary skills; association (psychological); paired associate learning

Results are reported of five studies of word meanings and associations of the deaf child. Subjects from two oral schools for the deaf and a group of normally hearing students were given a word association test. The generally higher same form class responses of subjects form oral school B were thought to reflect their language instruction which emphasized grammatical structure. On a continuous association task, deaf children performed relatively well compared to a standard for hearing children in grade 7. On a test of written meanings, results revealed that deaf children used more associations in defining than hearing children, and they gave fewer adequate definitions. Another investigation showed that the two groups of deaf children were less able than the hearing to identify synonyms and associations correctly. In a study of alternative word meanings, the item context had essentially no effect on the performance of deaf subjects while the performance of hearing subjects was depressed by misleading contexts. The overall results showed the deaf to be deficient in verbal association in comparison to the hearing and showed a lack of improvement with age in the deaf groups. It was suggested that verbal achivement and behavior patterns of the deaf be studied without continuous comparison with the hearing. (RJ)

ABSTRACT 20983

EC 02 0983 ED 033 523
Publ. Date Sep 69 50p.
Academic Achievement Test Performance of Hearing Impaired Students, United States: Spring 1969. Data from the Annual Survey of Hearing Impaired Children and Youth.
Gallaudet College, Washington, D. C., Office Of Demographic Studies
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; academic achievement; national surveys; statistical data; test validity; test reliability; age differences; deaf; hard of hearing; achievement tests; Stanford Achievement Tests

The objectives of the annual survey of hearing impaired children and youth which are presented are to collect, process, and disseminate statistical information on characteristics of all hearing impaired individuals through college age. One aspect of this work is described through results of the administration of the Stanford Achievement Tests (Form W) to about 12,000 hearing impaired children from 70 schools and 39 classes, a description of the tests, the methodology and sources of the data, and the qualifications and limitations of the data are included. Also provided are detailed tables of the results of the test batteries and a description of these tables. It was noted that the test results should be considered limited because the Stanford Achievement Tests were developed for hearing students. Appendixes include an annual census form, a description of the sub-tests of the Wechsler, and a list of participating schools. (JM)

ABSTRACT 21154

EC 02 1154 ED N.A.
Publ. Date 70 5p.
Brown, Jerome; Arkebauer, Herbert J.
Using the Language Master with Hearing Impaired Children.
EDRS not available
Teaching Exceptional Children; V2 N2 P81-5 Win 1970

Descriptors: exceptional child research; aurally handicapped; instructional materials; teaching machines; audiovisual aids; programed instruction; self pacing machines; autoinstructional aids; language instruction; vocabulary development; Language Master

The use of the Language Master machine for vocabulary instruction with hearing impaired children was examined to compare its effectiveness with traditional teaching procedures. The results showed no significant differences in vocabulary gains between the two methods, but the authors suggested that the use of the Language Master provides the additional advantages of freeing the

teacher from certain routine activities, and enabling the child to assume increased independence and participation in the learning process. (RD)

ABSTRACT 21231

EC 02 1231 ED 003 310
Publ. Date May 64 66p.
Birch, Jack W.; Stuckless, E. Ross

The Relationship Between Early Manual Communication and Later Achievement of the Deaf.

Pittsburgh University, Pennsylvania, School Of Education
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEC-3-10-078 CRP-1769

Descriptors: exceptional child research; aurally handicapped; achievement; communication (thought transfer); language skills; psychoeducational processes; language tests; finger spelling; sign language; early experiences; skill development; speech skills; reading skills; writing skills; lipreading; personal adjustment; language development; social adjustment

An investigation was undertaken to determine whether early manual communication with deaf children influences their subsequent acquisition of intelligible speech, reading ability, speech reading ability, written language, and psychosocial adjustment. The design involved matched pairs of subjects because of the large number of variables which needed to be controlled. Early manual communication was the independent variable. One subject of each matched pair was a deaf child who had learned manual communication from infancy. The other was a deaf child who had not. From five schools for the deaf, a preliminary matching led to 105 children of deaf parents being matched with 337 deaf children of hearing parents. All children were 10 years of age or over. Data collected by parental questionnaires were used in pairing of children. Pairs of subjects were matched and tested with regard to several variables. The deaf children who had learned to communicate manually from infancy were superior to the group without early communication experiences in speechreading, reading, and written language. It was concluded that, when the influence of early manual communication is present, this influence helps the development of conventional language skills. (JC)

ABSTRACT 21471

EC 02 1471 ED 034 349
Publ. Date Jul 69 94p.
Hanson, Grace Haen And Others

Relationships among Audiological Status, Linguistic Skills, Visual-Motor Perception, and Academic Achievement of Deaf Children. Final Report.

Texas University, Austin
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-4-7-002353-2051
BR-6-2353

Descriptors: exceptional child research; aurally handicapped; perception; psycholinguistics; academic achievement; visual perception; perception tests; perceptual motor coordination; reading tests; language ability; deaf

To determine whether interrelationships existed among visual motor perception, linguistic skills, academic achievement, and the audiological status of deaf children, 199 subjects functioning from dull normal to superior in intelligence (aged 5.6 to 11) were studied. The results of the testing revealed that visual-motor-perceptual dysfunction is more frequently found in deaf than hearing children, and this lag does not seem to be the result of brain damage; a visual perceptual lag is more often found in those who test at a dull normal level; and a positive relationship exists between visual motor perception and intelligence, linguistic ability, and academic status. Some recommendations were that differential diagnostic testing should include assessment of visual motor perceptual functioning, training in this function should be emphasized throughout elementary school, motor encoding should be used for concept learning, a refined teacher evaluation scale for assessing language is needed, and further studies along these lines should be made. (Author/JM)

ABSTRACT 21474

EC 02 1474 ED 034 352
Publ. Date Aug 69 21p.
Quigley, Stephen P.

Research on Some Behavioral Aspects of Deafness.

Illinois University, Urbana, Institute Of Research On Exceptional Children
Rehabilitation Services Administration (DHEW), Washington, D. C.
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; finger spelling; college choice; supervisors; language ability; residential schools; occupational surveys; administrator evaluation; program evaluation; research reviews (publications); standards; manual communication; college students; academic ability

One of three projects included examined the effects of combined speech and fingerspelling on the development of language and communication using a survey of over 200 subjects from six residential schools. The results showed that fingerspelling in combination with speech leads to improved achievement, shows no detrimental effects on the acquisition of oral skills, is best with young children, and is useful enough to indicate that those working with the deaf should be familiar with manual communication. A second study was conducted to determine the success of the deaf attending regular institutions of higher education. Results indicated that those attending regular institutions came from socioeconomic backgrounds similar to the general college population, their school background was generally in oral residential schools, and successful completion depended simply on academic ability. An ongoing project to investigate occupational status is mentioned. Results of a survey concerning supervision and supervisors in programs for the deaf indicated the following needs: increased supervision, improved quality of supervision, setting professional standards for supervisors, and discussion and resolution of problems in supervision by professional persons in education. (JM)

ABSTRACT 21489

EC 02 1489 ED 034 367
Publ. Date Jun 69 100p.
Craig, William N.; Collins, James L.

Communication Patterns in Classes for Deaf Students. Final Report.

Pittsburgh University, Pennsylvania, School Of Education
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEG-0-8-000640-1863(032)
BR-7-0640

Descriptors: exceptional child research; aurally handicapped; classroom communication; classroom observation techniques; interaction process analysis; student teacher relationship; age differences; communication (thought transfer); teaching methods; oral communication; manual communication

To develop a system for making systematic observations of classroom communicative interaction, to provide guidelines for its utilization, and to suggest applications of this system to problems in the development of communication skills, 94 deaf children were directly observed in class interaction. An evaluation instrument was developed from the Flanders system and employed 20 categories and 11 modes of description. Results showed that in all grade levels the majority of communication was teacher initiated, but that at higher levels there was a gradual increase in student response and initiation. Questioning and informing were the two most frequently observed categories used by teachers in both language-dependent and specialized instruction; these categories were also the ones used most frequently by students in initiating communication. The oral mode was predominant at primary and intermediate levels in the day and residential schools in which data was gathered, but non-oral modes increased noticeably on the high school level in the residential school but not in the day school. Suggestions were that this instrument be used in further research in an effort to adjust the behavior of students and teachers. (JM)

ABSTRACT 21491

EC 02 1491 ED 034 369
Publ. Date Jun 69 348p.
Brill, Richard G. And Others
Pilot Program with Seriously Emotionally Disturbed Deaf Children. Final Report.
California School For The Deaf, Riverside
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-4-7-062422-0208

Descriptors: exceptional child research; aurally handicapped; emotionally disturbed; case studies (education); behavior change; parent attitudes; reading achievement; arithmetic; parent counseling; program evaluation; reinforcement; student evaluation; clinical diagnosis; adjustment (to environment)

To modify behavior and teach basic skills and subject matter, 16 emotionally disturbed deaf boys were involved in a pilot project to enable them to return to regular classes. The program featured a small staff-pupil ratio, application of behavior modification techniques, engineered instruction, individualized self-instructional curriculum materials, coordinated classroom and dormitory activities, manual communication, and parent education. Results showed that changes in class conduct and self-control were significant; reading skills showed good improvement; significant gains were made in arithmetic; interpersonal rapport improved among the boys and also with adults; and parents were enthusiastic about changes in their children. One of the 16 boys is deceased, one returned to a psychiatric hospital, and eight of the remaining 14 became successful participants in regular classes for the deaf. Extensive appendixes, tables, lists of figures pertaining to the project results, and case studies are included. (Author/JM)

ABSTRACT 21604

EC 02 1604 ED N.A.
Publ. Date Mar 70 7p.
Craig, William N.; Collins, James L.
Analysis of Communicative Interaction in Classes for Deaf Children.
EDRS not available
American Annals Of The Deaf; V115 N2 P79-85 Mar 1970

Descriptors: exceptional child research; aurally handicapped; communication (thought transfer); student teacher relationship; communication skills; receptive language; expressive language; oral communication; manual communication; classroom observation techniques

To provide a quantifiable instrument for direct observation and measurement of communication in classes for deaf children, an instrument based on Flander's categories was developed and tested. The system used 20 categories of communication (nine teacher initiated, nine student initiated, and two lack of communication) and 11 modes of communication; classes from primary through high school were, observed. The results indicated that teachers dominated initiation of classroom communication, that questioning and informing were the most used categories, that in the lower grades informing was the most frequent student response while in high school questioning was, and that no real relationship could be discovered between mode of communication and categories. Conclusions were that the instrument appeared effective for observation, and that research is needed into the relationship of teacher versus student initiated communication. (JM)

ABSTRACT 21827

EC 02 1827 ED N.A.
Publ. Date 69 7p.
Joiner, Lee M. And Others
Predicting the Academic Achievement of the Acoustically-Impaired Using Ingelligence and Self-Concept of Academic Ability.
EDRS not available
Journal Of Special Education; V3 N4 P425-31 Win 1969

Descriptors: exceptional child research; aurally handicapped; ability identification; self concept; self evaluation; academic achievement; intelligence tests; evaluation; predictive ability (testing)

To determine whether and to what extent a measure of intelligence adds to the predictive efficiency of self concept of academic ability in hearing impaired students, 80 students from grades 10, 11, and 12 were studied. Comparative data came from approximately 1800 nonimpaired tenth grade students. Measures used were intelligence, grade point average (GPA) in academic subjects, and self concept of academic ability (SCA). The results showed that the correlation between SCA and GPA is always larger than that between IQ and GPA; since SCA and IQ show less than 25% shared variation, the inference is that they do not measure the same thing; and behaviors of the hearing impaired and nonimpaired are similar enough to use the same measurement formula. The author's conclusion is that the student's estimate of his ability may affect his achievement more than his intelligence. Tables of results and measurement formulas are included. (JM)

ABSTRACT 21985

EC 02 1985 ED 035 998
Publ. Date Jun 69 106p.
Quigley, Stephen P.
The Influence of Fingerspelling on the Development of Language, Communication, and Educational Achievement in Deaf Children.
Illinois University, Urbana, Institute For Research On Exceptional Children
Rehabilitation Services Administration (DHEW), Washington, D. C.
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; finger spelling; language development; communication skills; manual communication; oral communication; sign language; language ability; reading ability; academic achievement; deaf; teaching methods; Rochester Method

Two studies were made of the Rochester Method of combining fingerspelling with speech and of its effects on development of language and communication in profoundly, prelingually deaf children. A survey tested school performances of 200 subjects from six residential schools for the deaf, three of which used the Rochester Method and three which used various combinations of oral and manual communication methods. An experimental study compared two matched groups of 16 deaf children, one using the Rochester and the other the oral method, after 4 years on measures of language and communication. The survey showed children using the Rochester Method were superior on mersures involving meaningful language. The experimental study also indicated that those using the Rochester Method exceeded the other on reading, written language, and speechreading abilities. It was thus concluded that the Rochester Method can lead to higher scholastic achievement, need not deter acquisition of oral skills, and is more beneficial when started with younger children. (JB)

ABSTRACT 22403

EC 02 2403 ED N.A.
Publ. Date 67 228p.
Vaughn, Gwenyth R.
Education of Deaf and Hard of Hearing Adults in Established Facilities for the Normally Hearing. Final Report.
Idaho State University, Pocatello
Rehabilitation Services Administration (DHEW), Washington, D. C.
EDRS not available

Department Of Speech Pathology And Audiology, Idaho State University, Pocatello, Idaho 83201.

Descriptors: exceptional child research; aurally handicapped; regular class placement; program evaluation; adults; academic education; technical education; special programs; multiply handicapped; communication skills; ancillary services; teaching methods

The purpose of the project was to determine the effectiveness of a trade, technical and academic program in existing educational facilities when certain techniques were introduced to help overcome communication problems for limited hearing persons: deaf, partially hearing, hard of hearing, multiply handicapped. Various supportive techniques were introduced to aid the educational achievement of 41 hearing impaired students at Idaho State University including the following: training in communication skills; special assistance in classroom and assigned work; and development of personal-social orientation. Student achievement was assessed by

pre- and post-program testing, rating committees, and degree of job satisfaction (employee, employer). Results indicated that comprehensive supportive measures can provide a means of assisting the hearing impaired to develop their full educational potential within educational facilities for the normally hearing. The study recommends wider establishment of supportive programs, creation of multidisciplinary traineeships, national consultant pools, and central data collection. (JB/Author)

ABSTRACT 22546

EC 02 2546 ED 038 816
Publ. Date Jul 69 169p.
Neyhus, Arthur I. And Others
Speechreading Failure in Deaf Children. Final Report.
Northwestern University, Evanston, Illinois, Institute For Language Disorders
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf,hc
OEG-3-7-062582-2084
BR-6-2582

Descriptors: exceptional child research; aurally handicapped; lipreading; success factors; deaf; language skills; memory; intelligence factors; neurological defects; visual perception; auditory perception; hearing loss; verbal ability; nonverbal ability; reading comprehension; composition skills (literary); motor development; sensory integration

To investigate the problem of speechreading failure, a battery of tests was administered to 60 deaf children, half of them poor learners and half good. Results indicated that those who developed speechreading did so at an early age and could deal with words, phrases, and sentences spoken at any rate whereas poor learners comprehended only words spoken slowly. Good learners were superior on measures of intellectual ability, reading comprehension and written language, and sequential and spatial memory. Factorial analyses also indicated that the good learners had more highly integrated and organized mental abilities. Neurological studies revealed positive neurological signs in poor learners; electroencephalographic studies did not discriminate significantly between the good and poor learners b did distinguish between the brain functioning of deaf and hearing children; ophthalmological studies indicated a high incidence of visual abnormalities in both experimental groups. (Author/JD)

ABSTRACT 22598

EC 02 2598 ED N.A.
Publ. Date 70 289p.
Rainer, John D., Ed. And Others
Family and Mental Health Problems in a Deaf Population. Second Edition.
EDRS not available
Charles C Thomas, Publisher, 301-327 East Lawrence Avenue, Springfield, Illinois 62703 ($12.00).

Descriptors: exceptional child research; aurally handicapped; mental health; psychiatric services; psychological evaluation; adults; psychotherapy; twins; statistical data; communication problems; research needs; family problems; personality; emotionally disturbed

In response to the growing concern with the psychiatric needs of the deaf, information from two statistically representative and independent samples, the total New York State population of literate deaf persons over twelve years of age, and deaf twins of all ages living in the eastern half of the United States, were studied. The report contains results of research, programs, psychiatric treatment areas, and outlines recommendations for future work. Chapters on deafness and depression, and communicating with the deaf have been added. (GD)

ABSTRACT 22656

EC 02 2656 ED N.A.
Publ. Date Jul 70 11p.
Craig, Helen B.
Reinforcing Appropriate Visual Attending Behavior in Classes of Deaf Children.
EDRS not available
American Annals Of The Deaf; V115 N4 P481-91 Jul 1970

Descriptors: exceptional child research; aurally handicapped; reinforcement; visual learning; attention control; operant conditioning

Three experiments were undertaken involving aurally handicapped children with visual attending problems (ages 6 to 10 years) to determine whether or not operant conditioning could increase visual attending. From lows of attending approximately 25% of the time, at the end of the experiments the attending time had increased to about 80% overall. The experiments used bheavior modification techniques including positive reinforcement (with and without extinction) with tokens and eventually only social reinforcement. The experiments were considered a success. (JM)

ABSTRACT 22722

EC 02 2722 ED 039 664
Publ. Date Jan 70 97p.
McConnell, Freeman; Horton, Kathryn B.
A Home Teaching Program for Parents of Very Young Deaf Children. Final Report.
Vanderbilt University, Nashville, Tennessee, School Of Medicine
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-32-52-0450-6007
BR-6-1178

Descriptors: exceptional child research; aurally handicapped; preschool programs; parent participation; auditory training; auditory evaluation; hearing aids; parent education; deaf; language development; hearing loss; parent attitudes; infancy

A demonstration home provided a parent oriented program and audiologic management for 94 deaf preschoolers (mean age 2 years 4 months). Each child underwent a trial period with different hearing aids before permanent recommendation was made. Parents were present at these clinic sessions; they also received instruction in how to encourage auditory behavior, orient the child to sound, and talk to the child. Findings over 3 years indicated that language age growth accelerated while performance age and nonverbal mental age remained linear. Also, ability to use amplification from the wearable hearing aid improved, with an improved mean threshold response to spoken voice of more than 20 dB. The parents mobilized themselves into pressure groups resulting in legislation for education of deaf preschoolers. Community approval of the project resulted in continuance of its services after federal funding ceased. (Author/JD)

ABSTRACT 22738

EC 02 2738 ED 039 680
Publ. Date Feb 70 66p.
Luterman, David M.
A Parent-Centered Nursery Program for Pre-School Deaf Children. Final Report.
Emerson College, Boston, Massachusetts
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-1-6-062069-1591
BR-6-2069

Descriptors: exceptional child research; aurally handicapped; preschool programs; parent participation; parent education; academic achievement; infancy; nursery schools; parent attitudes; language development

A nursery program for 48 deaf children aged from 1 1/2 to 3 years requir active participation of the parents. Parents selected the program, tutored their and other children, observed behavior in the nursery which included hearing children, and participated in discussion of family problems. In followup, about three-fourths of the children and of their parents were rated above average by classroom teachers of the deaf. However, these results may have been due to the passive admission procedures. Parents who were not middle class seeking or who had severe personal problems did not appear to benefit. Those who were became active lobbyists for deaf children in the state. (Author/JD)

ABSTRACT 22763

EC 02 2763 ED N.A.
Publ. Date Sep 66 12p.
Giangreco, C. Joseph
The Hiskey-Nebraska Test of Learning Aptitude (Revised) Compared to Several Achievement Tests.
Iowa School For The Deaf, Council Bluffs
EDRS not available

American Annals Of The Deaf; V111 N4 P566-77 Sep 1966

Descriptors: exceptional child research; aurally handicapped; deaf; prognostic tests; achievement tests; arithmetic; reading; academic achievement; prediction; predictive ability (testing); Hiskey Nebraska Test of Learning Aptitude

The purpose of this research was to explore the relationship between the learning age obtained in the Hiskey-Nebraska Test of Learning Aptitude (Revised) and several achievement scales to determine whether the Hiskey test could be used as a predictor of academic achievement for deaf children. Subjects were 235 deaf children broken into seven groups by age and grade level. Tests administered along with the Hiskey-Nebraska were the Stanford Achievement, Gates Reading, and Metropolitan Achievement Tests. A Teacher Rating Scale was also used. Arithmetic Computation and Arithmetic Reasoning showed the highest and most consistent correlations at all age levels (generally at the .05 level of confidence). Low correlations were obtained mostly in areas requiring reading skills. Significant and high correlations (.05 significance on all tests) were found in the low elementary and advanced high school years, indicating that it may be possible to predict academic achievement at these levels with the Hiskey-Nebraska Test. However, few significant correlations were obtained for the upper elementary years (fifth through ninth year levels). The cause of failure was not determined, but several causes were suggested. Three graphs and 26 correlation tables are provided. (HK)

ABSTRACT 22870

EC 02 2870 ED 040 522
Publ. Date Oct 69 126p.
McConnell, Freeman And Others
A Study of Current Practices in Education for Hard-of-Hearing Children. Final Report.
American Speech And Hearing Asssociation, Washington, D. C., Joint Committee On Audiology And Education Of The Deaf
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEG-0-8-071039-0188(032)
BR-7-1039

Descriptors: exceptional child research; aurally handicapped; educational needs; identification; educational programs; clinics; deaf; hard of hearing; public schools; special schools; state agencies; professional personnel; ancillary services

Descriptive data were gathered from state departments of education and health, local school districts, speech and hearing clinics, and residential and day schools for the deaf and hard of hearing. Site visits were made to 10 school districts. Results demonstrated that more emphasis was being placed upon the identification of children with hearing loss than upon the education and continued re-evaluation of these children. Site visits confirmed the impression that there was a lack of understanding of the special educational needs of hard of hearing children. State departments were generally unable to affect identification or educational programs. Schools for the deaf were frequently required, by default, to accept hard of hearing children, but only infrequently made special provisions for them. Clinics identified their chief function as providing identification and communication skills development services for preschool children. Recommendations were made involving educational, leadership, and research needs. (Author/JD)

ABSTRACT 22873

EC 02 2873 ED 040 525
Publ. Date 69 66p.
Quigley, Stephen P. And Others
Educational and Occupational Status of Young Deaf Adults in Illinois.
Illinois University, Urbana, Institute For Research On Exceptional Children
Rehabilitation Services Administration (DHEW), Washington, D. C.
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; occupational surveys; young adults; group status; academic achievement; job placement; day schools; residential schools; vocational adjustment; questionnaires; educational status comparison

A questionnaire was used to obtain information from 464 hearing impaired individuals concerning occupational status and to determine any relationship between types of educational programs attended and later occupational achievement. Subjects had attended exclusively one of four types of programs: residential, day school programs in Chicago, day school programs in other areas of Illinois, and public school classes for the general population. Analysis of the data revealed similarities among groups in wages received for given occupations and job satisfaction. Residential groups reported lower hearing ability and socio-economic level. Non-residential groups reported more professional, technical, and clerical employment; more social and marital involvement with normally hearing persons; better oral communication skills; a greater value on oral communication as related to job performance and advancement. (JB)

ABSTRACT 22945

EC 02 2945 ED N.A.
Publ. Date 70 6p.
Matkin, Noel D.; Olsen, Wayne O.
Induction Loop Amplification Systems: Classroom Performance.
EDRS not available
ASHA; V12 N5 P239-44 May 1970

Descriptors: exceptional child research; hearing aids; aurally handicapped; loop induction systems; deaf; instructional technology

Hearing aid output was measured for six brands of induction loop amplification (ILA) equipment in 10 classrooms. Results indicated acoustic gain ranged from 30 to 65 dB and amount of amplification was directly related to the distance of the aid from a segment of the loop. Differences among the ILA systems were found for frequency response curves and for hearing aid output when switched from microphone to loop position, when one of two different teacher's microphones was used, and when the orientation of the aid to the loop was changed. In some instances, high noise levels were generated internally and, in others, traced to external sources. Teacher naivete and insufficient technical information from manufacturers also contributed to variable system performance. Only two ILA installations were judged satisfactory in performance. (Author/JD)

ABSTRACT 22959

EC 02 2959 ED N.A.
Publ. Date Jan 66 104p.
Quigley, Stephen P., Ed.
Language Acquisition.
Alexander Graham Bell Association For The Deaf, Washington, D. C.
EDRS not available
The Volta Review; V68 N1 P1-104 Jan 1966

Descriptors: exceptional child research; aurally handicapped; language development; language research; syntax; cognitive development; foreign countries; language instruction; multiply handicapped

The various chapters present recent thinking and research on language development and acquisition, particularly as related to the acquisition of language by deaf children. Topics include: The Capacity for Language Acquisition (specifically, the acquisition of syntax), by David McNeill; Implications for Language and Cognition, by Hans G. Furth; Language Acquisition of Deaf Children, by Robert L. Cooper and Joseph Rosenstein; Language Research in Other Countries Than the United States, by Stephen P. Quigley; Language Instruction for the Deaf, by Philip J. Schmitt; and Acquisition of Language by Deaf Children with Other Disabilities, by Frank B. Withrow. (KW)

ABSTRACT 23440

EC 02 3440 ED 041 410
Publ. Date Oct 69 185p.
Fiedler, Miriam Forster
Developmental Studies of Deaf Children. ASHA Monographs, Number 13.
American Speech And Hearing Association, Washington, D. C.
Rehabilitation Services Administration (DHEW), Washington, D. C.
EDRS mf,hc
ASHA Monographs, American Speech And Hearing Association, 9030 Old Georgetown Road, Washington, D. C. 20014 ($4.00).

Descriptors: exceptional child research; aurally handicapped; case studies (education); academic achievement; individual development; deaf; educational needs; sex differences; longitudinal stud-

ies; auditory evaluation; hard of hearing; parent attitudes; multiply handicapped; emotional development; residential schools; student placement; language development

The development and progress of 20 children in a residential oral school for the deaf were studied over 7 years through testing, observation, and examination of school records. Followup was done when the children were in their 10th and 11th years of school. Audiologic examinations were also given. Results indicated that none of the 20 had his deafness discovered in infancy or received followup by immediate, parent oriented therapy. One-fourth of the group should have been placed in programs for the hard of hearing, not deaf; one-third in programs for the multiply handicapped. Boys were more handicapped in learning than were girls. Educational needs involved consideration of the effects of early residential placement and alternatives to it and better understanding of language learning and of developmental stages of growth and emotional factors in learning. (Author/JD)

ABSTRACT 23542

EC 02 3542 ED N.A.
Publ. Date 66 121p.
Frisina, D. Robert; Johnson, Donald D.
A Nonverbal Hearing Test for Children with Deafness.
Gallaudet College, Washington, D. C.
Office Of Education (DHEW), Washington, D. C.
EDRS not available
OEG-5-0962-4-11-3
Gallaudet College, Florida Avenue And 7th Street, N. E., Washington, D. C. 20002

Descriptors: exceptional child research; aurally handicapped; a Ion; Deaf; Preschool Children; Audiometric Tests;evaluation methods; sensory integration; tactual perception; testing; Bekesy Audiometry; Modified Ascending Bekesy

Eight experiments were completed in the development and quantification of vibrotactile conditioning procedures that led to the measurement of hearing in hearing and deaf subjects ranging from adults to 2 1/2 year olds. A modification of the Radioear B-70A bone conduction transducer was coupled with the Grason-Stadler E-800 Bekesy audiometer to provide a programed stimulus used to instruct, nonverbally, deaf and hearing subjects to perform routine Bekesy audiometry. Cross-modality generalization from a vibrotactile to an auditory stimulus was found to take place routinely in all age groups. A modification to the E-800 audiometer was developed that would allow a single press of the response switch by the subject to measure his ascending threshold. This procedure, referred to as (Modified Ascending Bekesy (MAB)) was found to be effective with children as young as 2 1/2 to 3 1/2 years of age. (Author)

ABSTRACT 23561

EC 02 3561 ED 042 294
Publ. Date Jun 68 53p.
Withrow, Frank B.; Brown, Donald W.
An Experimental Program of Language Development Using a Systematic Application of Audio-Visual Aids to Reinforce the Classroom Teacher's Program for Children with Impaired Hearing. Final Report.
Illinois School For The Deaf, Jacksonville
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-6-19-074

Descriptors: exceptional child research; aurally handicapped; language development; audiovisual instruction; lipreading; instructional films; teaching methods; program descriptions; Illinois Communication Scale

Three hundred and six 8mm cartridge-type films were produced to provide deaf children instruction in and practice with noun vocabulary, question forms, prepositions, and speechreading. Films were placed in 12 classes. Method of presentation and time spent was determined by individual teachers, most of whom had attended a three-day orientation workshop. Group I, consisting of 38 children (median age 8.6) worked with the projectors and language films similar to but not a part of the experimental films for one year. Group II (43 children, median age 7.6) used the experimental films for one year. Group III (29 children, median age 6.6) used both groups of films during two years. To determine progress in speechreading ability, the Illinois Communication Scale (Form B) was administered to each class before and after each year. Group III showed a 50% improvement in speech reading ability over the two years. Group I improved 21.74% while Group II showed 12.00% improvement. Reasons suggested for this are differences in intelligence, previous education, and age, and greater similarity than had been thought between the experimental and non-experimental films. The major criticism related to content (unrelated noun vocabulary). Appendixes include the Illinois Communication Scale and the Evaluation questionnaire. (KW)

ABSTRACT 23565

EC 02 3565 ED 042 298
Publ. Date Dec 69 174p.
Scherer, Patricia A.
Visual Learning Processes in Deaf Children. Final Report.
Northwestern University, Evanston, Illinois
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf,hc
OEG-3-6-068664-1595
BR-6-8664

Descriptors: exceptional child research; aurally handicapped; reading; teaching methods; reading instruction; lipreading; deaf education; language development

To compare three processes for teaching deaf children to read, 54 deaf children (ages six, eight, and 10 years) were matched according to age, sex, hearing level, intelligence, socioeconomic level, and reading abilities, and were randomly assigned to one of three groups. Group A subjects were given a stimulus which consisted of the read form, the speechread form, and an illustrative picture. Group B presentation included only the read word and a picture. Group C subjects were given the read word and the speechread word. A filmed teaching machine procedure was used (10 presentations over two weeks). A battery of posttests measured changes in learning among 27 variables. Results showed Situation A superior to B on Sentence and Paragraph Comprehension in reading (no differences between B and C). Group A was superior to C in speechreading and error scores, indicating that all three cues (read form, speechread form, and picture) provided for most effective learning, and that speechreading is a noteworthy factor in learning to read. Appendixes include the film format, tests of word recognition, sentence comprehension, and paragraph comprehension, and a bibliography. (KW)

ABSTRACT 23590

EC 02 3590 ED N.A.
Publ. Date Mar 70 10p.
Ross, Mark; Lerman, Joy
A Picture Identification Test for Hearing-Impaired Children.
EDRS not available
Journal Of Speech And Hearing Research; V13 N1 P44-53 Mar 1970

Descriptors: exceptional child research; aurally handicapped; visual measures; auditory discrimination; auditory perception; word recognition; pictorial stimuli; measurement techniques; measurement instruments

A picture identification test for measuring speech discrimination ability in hearing-impaired children was developed in two phases. In the first phase the word stimuli were evaluated to determine whether they were within the recognition vocabulary of the children and whether the pictorial representations of the words were adequate. Before the second phase, the test was revised to consist of 25 plates with six pictures on each plate, with only four of the pictures on each plate used as test stimuli. These four lists were given to 61 hearing-impaired children on two separate occasions. The results indicate reliability coefficients in excess of 0.87 for all four lists, with mean differences of less than 3% and correlation coefficients between lists greater than 0.84. The test appears to be a potentially valuable clinical tool in pediatric audiology. The name selected is the Word Intelligibility by Picture Identification test (WIPI). (Author)

ABSTRACT 23611

EC 02 3611 ED N.A.
Publ. Date Aug 70 11p.
Fitzgerald, Mary Dale And Others
Audiometric, Developmental, and Learning Characteristics of a Group of Rubella Deaf Children.
EDRS not available
Journal Of Speech And Hearing Disorders; V35 N3 P218-28 Aug 1970

Descriptors: exceptional child research; aurally handicapped; rubella; auditory evaluation; hearing loss; intellectual development; learning characteristics

The extent of hearing loss, the audiometric configuration, the sound awareness levels for complex sounds, and the response to amplification were studied in a selected sample of 19 hearing-impaired children born during the 1963-64 rubella epidemic in the mid South. The children ranged in age from three years-eight months, to three years-eleven months. Their physical growth and development were assessed, and their intellectual functioning was evaluated with selected items from the Nebraska Test of Learning Aptitude. The degree of hearing loss and the configuration in general were compared to studies by Fisch, et. al. The lack of any one predominant type of audiometric curve in the sample suggests the 1963-64 rubella child cannot be easily categorized. It was found these children were afflicted with rather profound hearing losses, and that the later the occurence of rubella in the mother the less severe hearing loss in the child. The height, weight, and head circumferences measured below age level. Intellectual functioning was found at or above age level in opposition to findings of Myklebust, Vernon and Miller; however, these children had all received structured home teaching. (GD)

ABSTRACT 30014

EC 03 0014 ED 043 141
Publ. Date Aug 70 13p.
Liechti, Carroll D.; Gwaltney, Thomas Larry
Title VI Hearing-Handicapped Preschool and Kindergarten Levels.
Wichita Unified School District 259, Kansas;
Kansas State Department Of Public Iinstruction, Topeka
Office Of Education (DHEW), Washington, D. C., Bureau Of Elementary And Secondary Education
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; preschool education; kindergarten; sensory training; communication skills; experimental programs; special classes; Kansas

Two special classrooms were provided for 20 students at the preschool and kindergarten level who had severe hearing impairments. Two teachers and two instructional aides conducted classroom activities centered around sense training (visual, tactile, and auditory experiences). Speech development and communication skills were desired outcomes. To measure student gains in eight subtest areas, the Nebraska Test of Learning Aptitude was administered. In one year, the preschool students made and average growth of one year and 11 months in mean learning age. The kindergarten group showed an average gain of one year and five months in mean learning age. Student records, samples of classwork, and teacher written reports on each student (including sense training, socialization, responsibility, basic learning skills, and language development) correlated with the test data. (KW)

ABSTRACT 30086

EC 03 0086 ED N.A.
Publ. Date Sep 70 6p.
Lach, Rosemary And Others
Early Speech Development in Deaf Infants.
EDRS not available
American Annals Of The Deaf; V115 N5 P522-6 Sep 1970

Descriptors: exceptional child research; aurally handicapped; speech; infants; phonology; deaf; developmental vocabulary

The study recorded the phonological development of seven deaf children, initially aged 11 to 32 months, during the first year of a parent-guidance program emphasizing vocalization and optimal use of residual hearing. Tape-recorded samples of 30 vocalizations were periodically transcribed and analyzed. Results show that central vowels tended to predominate at all stages. Phonemes used by the children increased during training, though performance remained inferior to that of hearing children previously studied. Significant gains made through training indicate that early speech rehabilitation can be advantageous to the young deaf child. (KW)

ABSTRACT 30018

EC 03 0018 ED 043 144
Publ. Date May 70 6p.
Asp, Carl W.
The Effectiveness of Low-Frequency Amplification and Filtered-Speech Testing for Pre-School Deaf Children. Interim Report.
Tennessee University, Knoxville
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf,hc
OEG-0-9-522113-3339(032)
BR-52-2113
Paper Presented At The Meeting Of The Acoustical Society Of America (79th, Atlantic City, New Jersey, April 22, 1970).

Descriptors: exceptional child research; aurally handicapped; hearing aids; auditory training; preschool children

To evaluate the effectiveness of low-frequency amplification, three classrooms were equipped in an experimental design in which the teacher spoke simultaneously through two different amplifying systems, a low-frequency auditory training unit (Suvag I) and a conventional unit (Warren T-2). Thirty preschool deaf children were matched and assigned to either unit. The same type of output transducers were utilized for all the children. Teachers used the Verbotonal Method (primarily an auditory program) for habilitation. The low-frequency unit produced a greater acoustic response below 500 Hz. Hearing aids were selected that produced frequency responses similar to the training units (the Mini Suvag for children on the low-frequency unit, the Zenith Vocalizer II for the conventional unit). A Bruel and Kjaer t system was used to evaluate the training units and hearing aids. The Mini Suvag, capable of simultaneously driving a vibrator and a headset, had a greater low-frequenc, response. (KW)

ABSTRACT 30087

EC 03 0087 ED N.A.
Publ. Date Sep 70 10p.
Vernon, McCay; Koh, Soon
Early Manual Communication and Deaf Children's Achievement.
EDRS not available
American Annals Of The Deaf; V115 N5 P527-36 Sep 1970

Descriptors: exceptional child research; aurally handicapped; manual communication; finger spelling; sign language; oral communication; social adjustment; academic achievement; communication skills; deaf

Research on the effects of fingerspelling and the language of signs on the educational and social development of deaf children is summarized. Reported is a study comparing deaf students who were exposed to manual communication from infancy with students exposed to oral communication alone (speech, speech reading, and amplification). Areas of comparison were academic achievement, communication skills, and psychological adjustment. It was found that the early manual communication students exhibited better overall educational achievement (including superiority in reading skills and written language). No differences were found in speech intelligibility and speech reading, or in psychological adjustment. It is concluded that early manual communication facilitates educational achievement and linguistic development, and does not hurt speech and speechreading skills or psychological adjustment. (KW)

ABSTRACT 30098

EC 03 0098 ED 043 172
Publ. Date Dec 69 36p.
Matkin, Noel D.
Analysis of a Recorded Test for the Measurement of Hearing in Children.
Northwestern University, Evanston, Illinois, Department Of Communicative Disorders
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf,hc

OEG-0-8-080156-3526(032)
BR-8-0156

Descriptors: exceptional child research; aurally handicapped; audiometric tests; auditory evaluation; clinical diagnosis; tape recordings; preschool children; aural stimuli; auditory perception

To study the feasibility of using filtered environmental sounds as test stimuli to determine the auditory sensitivity of young children, a tape recorded test was prepared using environmental sounds which retain their identity when filtered. Twenty normal-hearing preschoolers and 40 hearing impaired children (20 with flat sensori-neural hearing losses, 20 with high frequency impairments) were evaluated during test and retest sessions. The sound test yielded auditory thresholds for both groups of subjects which were judged as valid and reliable as those obtained from pure tone testing. Further testing is recommended before the test's potential as a clinical tool is determined. (KW)

ABSTRACT 30347

EC 03 0347 ED N.A.
Publ. Date 69 12p.
Redell, Rayford C.; Calvert, Donald R.
Factors in Screening Hearing of the Newborn.
San Francisco Hearing And Speech Center, California
EDRS not available
Journal Of Auditory Research; V9 N3 P278-89 1969

Descriptors: exceptional child research; aurally handicapped; hearing loss; screening tests; infancy; nursing

A pilot study was conducted on 3200 neonates to determine the efficacy of screening hearing of the newborn. Also evaluated through studies on 2180 additional neonates were the nurses' training to conduct the screening, and various commercial screening equipment. Studied were characteristics of the child's response to different types of stimuli, sound pressure level, and behavioral condition of the baby when tested. It was learned that a nurse can be trained within two weeks, that a broad-band noise stimulus is more efficient than high-frequency warbled tones in evoking a response, and that screening was effective in identifying hearing loss in newborns in other than a high-risk category, as shown by followup studies. (KW)

ABSTRACT 30349

EC 03 0349 ED N.A.
Publ. Date May 70 11p.
Rapin, Isabelle And Others
Diagnosis of Hearing Loss in Infants Using Auditory Evoked Responses.
EDRS not available
Laryngoscope; V80 N5 P712-22 May 1970

Descriptors: exceptional child research; aurally handicapped; hearing loss; audiometric tests; infants; stimulus behavior

Eighty-six infants under one year of age were tested for hearing loss by recording auditory evoked responses (AER) during sleep. Responses to 100 presentations of a varying-frequency stimulus were recorded. Data show that a valid clinical assessment of peripheral auditory function by AER testing can be obtained in infants under one year of age. When threshold determination was made (on the first test in 75% of the cases), there was an excellent correlation with clinical follow-up. In no case was hearing worse than originally estimated. The median follow-up time was nine months for the 27 infants followed-up. (KW)

ABSTRACT 30350

EC 03 0350 ED N.A.
Publ. Date Jan 70 7p.
Power, D. J.
Skills Involved in Teaching the Deaf--A Factor Analytic Study.
EDRS not available
Teacher Of The Deaf; V68 N399 P13-9 Jan 1970

Descriptors: exceptional child research; aurally handicapped; teaching methods; teacher evaluation; evaluation methods

A Teaching Evaluation Report composed of 39 items was constructed and used as ratings for six teaching rounds with 45 children. The results of a factor analytic study indicated that many of the classroom skills involved in teaching deaf children are closely related to the skills necessary for teaching elementary school age hearing students. Oral and manual communication factors and a speech teaching factor appeared to be the skills specific to teaching deaf children. (Author/RD)

ABSTRACT 30512

EC 03 0512 ED 015 603
Publ. Date 66 132p.
Karlsen, Bjorn
Teaching Beginning Reading to Hearing Impaired Children, Using a Visual Method and Teaching Machines. Final Report.
Minnesota University, Minneapolis
Office Of Education (DHEW), Washington, D. C.
EDRS mf,hc
OEG-7-33-0400-230
BR-1204
University Of Minnesota Bookstore, Minneapolis, Minnesota 55455.

Descriptors: exceptional child research; aurally handicapped; reading materials; teaching methods; beginning reading; teaching machines; programed instruction; reading instruction; programed materials; Honeywell University of Minnesota Teaching Device (HUMID)

To teach beginning reading to hearing impaired children through visual presentations, the project designed and built a teaching machine, generated programs, and tested the system (Honeywell University of Minnesota Teaching Device or HUMID. Programs incorporated various techniques and new approaches. To test one of the programs with deaf and hard of hearing children, a group of 10 first graders and a group of 9 and 10 year old students from a remedial class were taught 34 programs. Control groups were also formed. Results of a test on the concepts of the programs showed the first grade experimental group scored significantly better (at the .01 level) than its control group; the remedial experimental group scored better (not significantly) than its control group. On standardized tests the first grade experimental group approached a difference of statistical significance with scores higher than their control group, but no significant differences were found between the remedial experimental and control groups. Additional studies are reported. It was concluded that an automated system to teach reading non-orally can be developed and that teaching machines have a place in classrooms for the deaf. (MS)

ABSTRACT 30584

EC 03 0584 ED 044 001
Publ. Date 70 13p.
Boothroyd, Arthur
Sensory Aids Research Project--Clarke School for the Deaf.
Clarke School For The Deaf, Northampton, Massachusetts
EDRS mf,hc
Prepared For The Pre-Congress Symposium, Speech Communication Ability And Profound Deafness, International Congress Of Education Of The Deaf (Stockholm, Sweden, August, 1970).

Descriptors: exceptional child research; aurally handicapped; sensory aids; sensory training; hearing aids

Described is a program of research into sensory aids for the deaf, emphasizing research on factors involved in the effective use of sensory aids rather than evaluation of particular devices. Aspects of the program are the development of a programed testing and training unit, the control of fundamental voice frequency using visual feedback, and tactile stimulation using a wearable hearing aid. The experiments conducted in each of these three areas are detailed. (KW)

ABSTRACT 30607

EC 03 0607 ED 044 848
Publ. Date Aug 70 41p.
Voneiff, Patricia; Gentile, Augustine
Type and Size of Educational Programs Attended by Hearing Impaired Students, United States: 1968-69.
Gallaudet College, Washington, D. C., Office Of Demographic Studies
Office Of Education (DHEW), Washington, D. C., Bureau Of Education For The Handicapped
EDRS mf,hc
OEG-32-18-0070-6009
BR-6-1193
Gallaudet College Bookstore, Washington, D. C. 20002 ($1.00).

Descriptors: exceptional child research; aurally handicapped; educational programs; national surveys; statistical data; school statistics; age groups; hearing loss; demography; residential schools; day schools; preschool programs

Data on 25,363 students enrolled in

special education programs (residential schools and day class programs) for the hearing impaired during the school year 1968-69 are presented. Data describe the types and size of programs attended, and the age, sex, and hearing threshold levels of the students. In addition to the detailed tables, data summaries and a discussion of the qualifications and limitations of the data are included. Appended are a description of The Annual Survey of Hearing Impaired Children and Youth, the data collection form used and instructions for its completion, and a listing by state of the programs participating in the survey. (KW)

ABSTRACT 30778

EC 03 0778 ED N.A.
Publ. Date Oct 70 9p.
Brill, Richard G.
The Superior IQ's of Deaf Children of Deaf Parents.
EDRS not available
Journal Of Rehabilitation Of The Deaf; V4 N2 P45-53 Oct 1970
Reprinted From The California PALMS, (December, 1969).

Descriptors: exceptional child research; aurally handicapped; intelligence quotient; intelligence differences; parent child relationship; manual communication; oral communication; performance tests; measurement techniques; testing

To determine if deaf children of deaf parents as a group would have a mean IQ on performance tests significantly greater than deaf children who did not have deaf parents, a study was made involving 65 children of deaf parents who had used some form of manual communication with their parents before entering school and 88 children of hearing parents who had never used signs. Intelligence test scores used included the Wechsler Adult Intelligence Scale (WAIS), the Wechsler Intelligence Scale for Children (WISC) and the Leiter Intelligence Scale. Results showed the mean IQ score for the children with deaf parents to be 113 and those with hearing parents, 104. It was concluded that a deaf child using manual communication from a very early age begins his cognitive growth and utilizes the various thinking processes before the child of the hearing parents. It is suggested that hearing parents should use manual communication with their deaf children during the pre-school years. (GD)

ABSTRACT 30838

EC 03 0838 ED 044 869
Publ. Date (69) 23p.
Quigley, Stephen P.; Thomure, F. Eugene
Some Effects of Hearing Impairment Upon School Performance.
Illinois University, Urbana, Institute For Research On Exceptional Children
Illinois State Office Of The Superintendent Of Public Instruction, Springfield Division Of Special Education Services
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; performance factors; academic achievement; regular class placement; hard of hearing; identification; student evaluation

To determine the effects of hearing impairment on school performance of students for whom no special educational provisions had been made, 116 students (ages 7 through 17 in public school grades 2 through 10) were evaluated for auditory impairment, IQ, and educational achievement. Findings of the study showed that even mild hearing impairment resulted in educational retardation. The study also indicated the need for early and improved screening for auditory handicaps, and the lack of educational provisions for the mildly impaired. (RD)

ABSTRACT 30851

EC 03 0851 ED N.A.
Publ. Date Dec 70 7p.
Craig, William N.; Collins, James L.
Communication Patterns in Classes for Deaf Students.
EDRS not available
Exceptional Children; V37 N4 P283-9 Dec 1970

Descriptors: exceptional child research; aurally handicapped; classroom communication; classroom observation techniques; interaction process analysis; student teacher relationship; Flanders Category System

In order to describe more objectively the classroom communication of deaf children, an instrument for making systematic observations of this communication was developed and tested. This technique, based on the Flanders category interaction analysis system, was adapted specifically for use with the deaf and included notations both for communication purposes and communication modes. When applied to 12 selected classes of deaf children (94 subjects) the instrument proved sensitive to differences in classroom interaction and provided a systematic record of these communicative exchanges between the teacher and student and among students within classes. (Author)

ABSTRACT 31027

EC 03 1027 ED 046 151
Publ. Date Jul 70 109p.
Pronovost, Wilbert And Others
Educational Evaluation and Programming for Children with Auditory Disorders.
Boston University, Massachusetts, School Of Education
Office Of Education (DHEW), Washington, D. C., Bureau Of Elementary And Secondary Education
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; program evaluation; auditory training; evaluation methods

The report is concerned with the activities of a 3 year pilot project of an educational evaluation and programing unit for children with auditory disorders. The educational evaluation process, the programs and problems of implementation, dissemination, other project activities and an evaluation of the project are discussed. Appendixes cover such areas as staff, facilities and equipment, tabulations of data on children, and questionnaires for an evaluation of the project. (CD)

ABSTRACT 31061

EC 03 1061 ED N.A.
Publ. Date 70 4p.
Silver, Rawley A.
Art Breaks the Silence.
EDRS not available
Children's House; V4 N4 P10-3 Win 1970

Descriptors: exceptional child research; aurally handicapped; deaf; speech handicaps; aphasia; art; art education; abstract reasoning; art therapy

To explore the opportunities in art for assessing and developing the abilities of deaf (and other special education) children, 25 students (ranging in age from 8 to 17 years), deaf or aphasic, were placed in experimental art classes for approximately ten weeks. The drawings and paintings were evaluated by psychologists, psychiatrists, and special education teachers. General concensus (93%) was that evidence could be found that art had afforded opportunities to generalize, associate, evaluate, and express ideas and feelings. The author concluded that there was no reason why an individual who has impaired hearing or language should not have artistic talent, and that art experiences could serve to develop the capacity for abstract thought. (CD)

ABSTRACT 31163

EC 03 1163 ED N.A.
Publ. Date 65 120p.
Fisch, L., Ed.
Research in Deafness in Children.
EDRS not available
F. A. Davis Company, 1915 Arch Street, Philadelphia, Pennsylvania 19103 ($3.00).

Descriptors: exceptional child research; aurally handicapped; etiology; audiometry; auditory tests; genetics; incidence; infancy; conference reports

Presented are the proceedings of a conference held at Oxford, England, April 6-7, 1963, organized by the Medical Research Committee of the National Deaf Children's Society. Part 1 contains research papers on causes of deafness, including papers on the classification of causes, genetics and congenital deafness, a study of causes of deafness in 2,355 children, incidence of known and unknown causes and verification, and the advantages, disadvantages, and procedures for conducting national surveys. The text of a discussion on research into causes of deafness, with editorial comment, is included. Part 2, concerning hearing tests in children, presents papers examining hearing tests as practiced at present, reactions to sounds during infancy, need for hearing tests for newborns, and problems in interpreting the

E.E.G. and other electro-physiological changes in response to auditory stimuli. A second discussion, on hearing tests and associated problems, follows. (KW)

ABSTRACT 31178

EC 03 1178 ED N.A.
Publ. Date Dec 70 10p.
Flynn, Pauline T.; Byrne, Margaret C.
Relationship Between Reading and Selected Auditory Abilities of Third-Grade Children.
EDRS not available
Journal Of Speech And Hearing Research; V13 N4 P731-40 Dec 1970

Descriptors: exceptional child research; auditory perception; reading ability; socioeconomic influences; primary grades; auditory tests

The project studied auditory abilities of a selected group of advanced and retarded third-grade readers from high and low socioeconomic environments. Two general hypotheses were posed: advanced and retarded readers perform differently on auditory tasks; and socioeconomic environment affects auditory ability. A one-hour battery of auditory tests was administered to 39 third-grade children, all of whom were at least one year ahead or one year behind grade level in reading achievement. The research indicated that significant differences existed between advanced and retarded readers on the auditory tasks. Socioeconomic environment alone did not affect auditory ability. The advanced readers from both levels performed similarly, and so did the retarded readers. Significant differences were more frequently found when the groups had more widely divergent mean IQ scores. (Author)

ABSTRACT 31184

EC 03 1184 ED N.A.
Publ. Date Dec 70 23p.
Tillman, Tom W. And Others
Hearing Aid Efficiency in a Competing Speech Situation.
EDRS not available
Journal Of Speech And Hearing Research; V13 N4 P789-811 Dec 1970

Descriptors: exceptional child research; aurally handicapped; hearing aids; auditory tests; auditory perception

Discrimination for monosyllabic words heard against competing sentences was measured at the same sensation level during unaided and aided listening using four types of subjects: normal hearers, conductive loss cases, nonpresbycusic sensorineurals, and presbycusics. Unaided measures, including SRT and monosyllabic discrimination, were obtained by sound field testing conditions; aided measures were obtained with the subject in a separate room wearing the hearing aid receiver and earmold while the hearing aids were mounted on an artificial head placed in the sound field test chamber. The main findings were that the hearing-impaired required more of an increase in SPL, re performance in the sound field, to achieve spondee threshold via the hearing aid than can be accounted for by the difference in methodology alone, that intelligibility of monosyllabic words in quiet was somewhat poorer during aided listening than during unaided listening even though sensation level was held constant, that subjects with presbycusis and other sensorineural losses were less resistant to masking by competing sentences during unaided listening than were subjects with normal hearing or with conductive loss, and that all groups exhibited reduced intelligibility for a constant sensation level. (Author)

ABSTRACT 31193

EC 03 1193 ED N.A.
Publ. Date 69 65p.
White, Alfred Henry, Jr.
A Comparative Study of the Articulation of Consonant Phonemes Between Day School and Residential School Deaf Students.
Utah State School For The Deaf, Salt Lake City
EDRS not available
Mott Foundation Program, 1818 Tuscola Street, Flint, Michigan 48503.
Masters Thesis Submitted By The Author To University Of Utah, Salt Lake City.

Descriptors: exceptional child research; aurally handicapped; articulation (speech); residential schools; day schools; speech evaluation; speech handicaps

To compare the ability of day and residential school deaf children to articulate consonant phonemes, 22 students from the Utah State School for the Deaf (control group) were matched with 22 students from the day school extension division of that school (experimental group). An articulation test was administered and the total number of normal and intelligible responses compared using a chi square test and a t-test. Results showed that the null hypothesis, that significantly better articulation of consonant phonemes is not found in day school deaf students compared with residential school deaf students, could be rejected beyond the .01 level of confidence. It was concluded that the stimuli of the day school setting are more capable of eliciting a higher quality of speech. (KW)

ABSTRACT 31196

EC 03 1196 ED N.A.
Publ. Date Nov 70 8p.
Marshall, William A.
Contextual Constraint on Deaf and Hearing Children.
EDRS not available
American Annals Of The Deaf; V115 N7 P682-9 Nov 1970
Based On Part Of Author's Doctoral Dissertation, Department Of Special Education And Institute For Research On Exceptional Children, University Of Illinois, January, 1970.

Descriptors: exceptional child research; aurally handicapped; cloze procedure; reading ability; context clues; reading comprehension

The Cloze Procedure was used as the linguistic measuring instrument to study the effect of context on the deaf child's ability to make correct predictions in selectively multilated written materials at the fourth grade reading level. The experimental group included nine male and 15 female prelingually deaf residential school children (mean age about 16 years). The comparison group consisted of nine male and 15 female hearing students (mean age about 9 1/2 years). Three distinct levels of contextual constraint were generated from a single third grade reading passage. Results showed that as the amount of context became more constrictive, the mean proportions of correct insertions became greater for all subjects. The students showed they could take advantage of the increased amount of contextual information afforded by the connected discourse level of constraint. Such experimentation may lead to the construction of a written language medium that is optimum with respect to its environmental structure and predictability. (Author/GD)

ABSTRACT 31251

EC 03 1251 ED 046 167
Publ. Date 70 140p.
Restaino, Lillian C. R.; Socher, Penny A.
Curriculum Development for Young Deaf Children with Specific Learning Disabilities (Ages 4-8).
New York State Education Department, Albany, Division For Handicapped Children
Office Of Education (DHEW), Washington, D. C., Bureau Of Elementary And Secondary Education
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; learning disabilities; curriculum development; remedial programs; curriculum evaluation; program development; exceptional child education; early childhood; New York; Elementary and Secondary Education Act Title I

The CREED 4 project, the fourth of a continuing series, had as its objective the development of activities and materials for the remediation of deficits found in deaf children (ages 4-8 years) with special learning problems who had been administered the battery of tests developed in CREED 3, designed to assess five critical areas. A sample of 22 classes from the 11 schools for the deaf in New York State participated in the project. Both typical and learning disabled deaf children were included. Instructional procedures and materials were selected for the five skill areas of gross motor coordination, sensory-motor integration, visual analysis, attention and memory, and conceptualization. Sequential levels of instruction were developed, as was a teacher's guide. The program was subjected to pilot trial in the field and then evaluated by the administration of the CREED 3 Test Battery to participating classes, and by rating forms, written

narratives, and discussion from both teachers and observers. Included are the evaluation results, on the basis of which recommendations are made for program modifications related to the variables of interest, level of mastery, validity of sequence, relevance, and practicality. (KW)

ABSTRACT 31285

EC 03 1285 ED N.A.
Publ. Date 66 236p.
Furth, Hans G.
Thinking Without Language: Psychological Implications of Deafness.
EDRS not available
Free Press, 866 Third Avenue, New York, New York 10022 ($7.50).

Descriptors: exceptional child research; aurally handicapped; deaf; cognitive processes; thought processes; language development; psychological evaluation; historical reviews

The thinking-language relationship in the deaf is explored from the viewpoint of an empirical psychologist. The early chapters set the stage for the questions to which subsequent chapters address themselves. An historical perspective is taken; semantic clarifications of language competence, symbol, and thinking are made; the deaf and their language are examined; and contemporary psycholinguistics are outlined. The middle chapters relate a number of experimental observations on the thinking of hearing and deaf people. Implications from the empirical findings, dealing with the problem of thinking and language which will coordinate the findings, and also the state of affairs in the education of the deaf are presented. (CD)

ABSTRACT 31366

EC 03 1366 ED N.A.
Publ. Date Feb 71 6p.
Chovan, William L.; McGettigan, James F.
The Effects of Vocal Mediating Responses on Visual Motor Tasks with Deaf and Hearing Children.
EDRS not available
Exceptional Children; V37 N6 P435-40 Feb 1971

Descriptors: exceptional child research; aurally handicapped; mediation theory; perceptual motor coordination; aural stimuli; memory; recall (psychological)

The research investigated the effects of vocal labeling on short-term memory with two MA levels of deaf and hearing children. The purpose of the investigation was to determine the nature of the interaction among vocal labels, age levels, and a design arrangement task. It was found that 6 year old deaf and hearing children performed the same while 9 year old hearing children showed better recall than their deaf peers, with and without vocal labels. For the deaf, vocal labeling tended to have an interfering effect at the older levels, in part because of the competing stimuli in vocal auditory and visual-motor responses. (Author)

ABSTRACT 31375

EC 03 1375 ED N.A.
Publ. Date 70 240p.
Rodda, Michael
The Hearing-Impaired School Leaver.
EDRS not available
Charles C Thomas, Publisher, 301-327 East Lawrence Avenue, Springfield, Illinois 62703 ($8.50).

Descriptors: exceptional child research; aurally handicapped, statistical data; national surveys; graduate surveys; social adjustment; hearing loss; socioeconomic background; social class; psychological characteristics; intelligence level; vocational interests; social attitudes; personality development; foreign countries; Great Britain

Reported are the results of a descriptive study of a national sample of 230 hearing impaired school leavers in England during their last year in school. The purpose of the study was to assess the success of such students in the period prior to leaving school and to analyze their integration into society from an educational, psychological, and sociological point of view. The main variables used in the survey analysis were local authority areas, type of school, average pure tone hearing loss, speech reception level, age at onset of impairment, socioeconomic class, and sex. Data were gathered by three main techniques--audiometric examinations, psychological testing, and semi-structured interviews with the subjects, their parents, and their teachers. Psychological tests included tests of intelligence, occupational interest, and social adjustment. Data on friendship and leisure activities, preparation for work, social attitudes, and personality development are also discussed, and recommendations are made. Numerous tables and graphs showing data collected and results of chi-square and t-tests are appended. (KW)

ABSTRACT 31472

EC 03 1472 ED 046 207
Publ. Date 70 131p.
Marshall, William J. A.; Quigley, Stephen P.
Quantitative and Qualitative Analysis of Syntactic Structure in the Written Language of Hearing Impaired Students.
Illinois University, Urbana, Institute For Research On Exceptional Children
Bureau Of Education For The Handicapped (DHEW/OE), Washington, D. C.
EDRS mf,hc
OEG-0-9-232175-4370
BR-23-2175

Descriptors: exceptional child research; aurally handicapped; language development; syntax; writing skills; language ability; complexity level; sentence structure; language research; Bureau of Education for the Handicapped

The purpose of the study was to apply various quantitative and qualitative indices of grammatical complexity proposed by Hunt (1965) to written language samples of hearing impaired students. Hunt studied grammatical structures of normal students at three grade levels, and found that the minimal terminal syntactic unit, or T-unit, more reliably measured increasing syntactic complexity than the Subordination Ratio commonly used. Part I of the investigation studied the T-unit as a measure of syntactic complexity in the written language of 23 males and 23 females at nine selected age levels (10-18 years). The Subordination Ratio appeared to be more useful and reliable than the T-unit, which, however, did prove to be a useful measure. Part II of the study examined the types of grammatical structures which were chief contributors to increasing syntactic complexity in the written language samples. It was found that certain types of verbs and verbals possessed a great deal of sensitivity to growth across the whole 9 year age span sampled, while other constructions tended to be sensitive only at the younger or only at the older ages. (Author/KW)

ABSTRACT 31473

EC 03 1473 ED 046 208
Publ. Date 70 62p.
Babbini, Barbara E.; Quigley, Stephen P.
A Study of the Growth Patterns in Language, Communication, and Educational Achievement in Six Residential Schools for Deaf Students.
Illinois University, Urbana, Institute For Research On Exceptional Children
Bureau Of Education For The Handicapped (DHEW/OE), Washington, D. C.
EDRS mf,hc
OEG-0-9-232175-4370
BR-23-2175

Descriptors: exceptional child research; aurally handicapped; academic achievement; communication skills; language ability; longitudinal studies; sex differences; reading ability; speech skills; lipreading; mathematics; finger spelling

Communication skills, language abilities, and educational achievement of 163 subjects from six residential schools for deaf students were studied. Subjects were tested yearly from 1963 to 1967 on speech reading, fingerspelling, speech intelligibility, reading achievement, arithmetic achievement, and written language. Both males and females and the combined group showed significant improvement in all areas except speech intelligibility, speechreading, and vocabulary usage. Females were consistently superior in receptive communication ability, reading achievement, and most language ability measures. No differences between the sexes were found any year in arithmetic ability, or in educational achievement in the last 2 years of the study. For both sexes, growth in educational achievement ranged from 1/3 grade per year in reading and language to 1/2 grade per year in arithmetic. In 1963, the average subject showed a battery median of four grades lower than the average non-deaf student. In 1967, battery medians were nearly 6 grades below the Stanford Achievement Test norms. (Author/KW)

ABSTRACT 31570

EC 03 1570 ED N.A.
Publ. Date Feb 71 15p.
Eachus, Todd
Modification of Sentence Writing by Deaf Children.
EDRS not available
American Annals Of The Deaf; V116 N1 P29-43 Feb 1971

Descriptors: exceptional child research; aurally handicapped; behavior change; writing skills; deaf; reinforcement

The effects of token reinforcement and verbal remediation on the rate, accuracy, and length of sentences written by ten deaf children were assessed. The subjects were fourth grade students in a residential school for the deaf. Forty-one experimental sessions, 50 minutes long, were run in which subjects wrote sentences. Subjects worked in the Mediated Interaction Visual Response System, each subject utilizing an overhead projector so that his writing was directly visible to facilitate immediate consequation. The results were felt to demonstrate that effective control was established over behavior. Instatement of reinforcement and remediation as consequences for appropriate composition established and maintained high response rates and high levels of accuracy. Reversal of the effects were obtained through withdrawal of the consequences and later reinstatement. Researchers felt the results of the experiment suggested that contingencies could be established and procedures developed which lead to the establishment and maintenance of sustained high output from deaf children. (Author)

ABSTRACT 31574

EC 03 1574 ED 046 210
Publ. Date Aug 70 489p.
Silverman-Dresner, Toby; Guilfoyle, George R.
The Deaf Child's Knowledge of Words: Volume I. Final Report.
Lexington School For The Deaf, New York, New York
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-0-8-000419-1792
BR-7-0419

Descriptors: exceptional child research; aurally handicapped; vocabulary; word recognition; vocabulary development; reading tests

To assess the reading vocabulary knowledge of deaf children, a vocabulary pool of 14,852 words was reduced to 7,300 words. These words were fed into a computer to produce 73 sets of 100 randomly selected words each. The 73 sets were converted into vocabulary tests which were randomly administered, two per child, to 13,207 deaf students, ages 7-17 years, in 89 schools for the deaf in the United States. Results indicated that girls, in general, seem to know more words than do boys, and that older children seem to know more words in common than do younger ones. The major portion of the report consists of a list of the 7,300 words, with definitions, and with the percentages of children in each of five age groups who knew the word. A summary of words known by 67% of deaf children at the various age levels is also presented. Appended are statistical characteristics, such as times administered and mean scores, of the 73 test forms, and statistics on the frequency of occurrence and percentage of correct responses for each of the 7,300 words for the total group of subjects and for just the 7-year-old subjects. Appended information continues in Volume 2 of the report (see EC 031 575), which includes an alphabetical list of the test forms and instructions to teachers for test administration. (Author/KW)

ABSTRACT 31575

EC 03 1575 ED 046 211
Publ. Date Aug 70 747p.
Silverman-Dresner, Toby; Guilfoyle, George R.
The Deaf Child's Knowledge of Words: Volume II, Alphabetical List of Test Items. Final Report.
Lexington School For The Deaf, New York, New York
Office Of Education (DHEW), Washington, D. C., Bureau Of Research
EDRS mf,hc
OEG-0-8-000419-1792
BR-7-0419

Descriptors: exceptional child research; aurally handicapped; vocabulary; word recognition; vocabulary development; reading tests

The document is the second volume of a report providing descriptive data on the reading vocabulary of deaf children ages 8-17 years, which resulted from a study assessing the reading vocabulary knowledge of 13,207 deaf students. Volume 2, continuing the appendix begun in Volume 1, contains an alphabetical list of the 7,300 words used on the 73 forms of the vocabulary test, with their definitions and decoys, for instructors who may wish to test children on particular words. Brief instructions for test administration are given. (KW)

ABSTRACT 31579

EC 03 1579 ED N.A.
Publ. Date Feb 71 5p.
Balow, Bruce And Others
Reading Comprehension Skills Among Hearing Impaired Adolescents.
EDRS not available
Volta Review; V73 N2 P113-9 Feb 1971

Descriptors: exceptional child research; aurally handicapped; reading comprehension; reading tests; reading skills; adolescents; time factors (learning); testing; New Developmental Reading Test; Metropolitan Reading Test

One hundred fifty-seven hearing impaired adolescents in Minnesota who attend residential schools or special day school programs for the hearing impaired were given two reading tests to determine their reading levels--the New Developmental Reading Test (NDRT) and the Metropolitan Reading Test (MRT). Comparisons made between scores of various age groups, ranging from age 13 to age 21 years, showed only limited improvement in the mean scores. Comparisons are made between scores obtained under standard time limits and under unlimited time conditions, and between literal reading comprehension skills and interpretive reading comprehension skills. The Literal Comprehension mean grade equivalent score was almost one full grade higher than the Creative Comprehension mean. Even unlimited time did not raise the inferential-interpretive reading ability to the level of the reading for specific factual information. On the NDRT, timed and unlimited scores on Creative Comprehension tests show little difference, but extended time improved the Literal Comprehension scores. Scores of the small group of mildly hearing impaired students were more than one grade above the same test means of the total sample. Good agreement was found between the mean vocabulary scores on the NDRT and MRT, but a higher mean score for General Comprehension is shown on the NDRT. (Author/KW)

ABSTRACT 31744

EC 03 1744 ED 046 475
Publ. Date 69 124p.
Vernon, McCay
Multiply Handicapped Deaf Children: Medical, Educational, and Psychological Considerations.
EDRS not available
Council For Exceptional Children, 1411 South Jefferson Davis Highway, Suite 900, Arlington, Virginia 22202 ($5.25 HC, $3.75 PB).

Descriptors: exceptional child research; multiply handicapped; aurally handicapped; etiology; incidence; psychological evaluation; educational diagnosis; medical evaluation; rubella; Rh factors; premature infants; heredity; meningitis

An extensive survey of the literature examines five major etiologies--prenatal rubella, premature birth, complications of Rh factor, meningitis, and genetics--in terms of their relevance to deafness and other disabilities. Following this survey, results of a study of 1,468 deaf children to determine causes of secondary handicaps in deaf children and to describe the nature of these handicaps are reported. Intensively studied were those deafened by maternal rubella (141), meningitis (137), prematurity (257), erythroblastosis fetalis caused by Rh factor complications (45), and heredity (79). Independent variables were these five etiologies. Dependent variables measured were intelligence, educational achievement, psychological adjustment, behavioral evidence of brain damage, communication skills, hearing loss, and physical anomalies. Data are analyzed for each of the dependent variables, and for prevalency of etiologies and of multiple handicaps. Findings for each of the five etiological groups are then presented. General conclusions were that much behavioral vari-

ance among deaf children is not due to their hearing loss, but can be ascribed to brain damage resulting from the same cause as the deafness. This variance was in areas critical to academic learning, psychological adjustment, and physical health. (KW)

ABSTRACT 31746

EC 03 1746 ED 046 477
Publ. Date 70 118p.
Lerman, Alan M.; Guilfoyle, George R.
The Development of Pre-Vocational Behavior in Deaf Adolescents.
EDRS not available
Teachers College Press, Columbia University, 525 West 120th Street, New York, New York 10027 ($4.25).

Descriptors: exceptional child research; aurally handicapped; prevocational education; behavior patterns; deaf; adolescents; communication problems; language ability

To investigate the development of prevocational behavior in adolescents enrolled in schools for the deaf, and to determine some of the major variables related to the prevocational behavior of deaf adolescents, 240 students from four schools for the deaf were studied. Information required for the study was obtained in three ways: a personal data sheet, a parent questionnaire, and a series of testing and interviewing sessions with the subjects. Results were described indicating that at all ages deaf subjects choose jobs at lower socioeconomic levels than do their hearing siblings and tend to cluster at the semiskilled and unskilled levels. It was concluded that the vocational information and planning of deaf subjects were related to their language and communication competence, the level of stimulation at home, and to a lesser degree their intelligence and independence. (CD)

ABSTRACT 31781

EC 03 1781 ED 048 677
Publ. Date Sep 70 137p.
Prisuta, Richard
A Follow-Up Study of Auditorially, Visually, and Orthopedically Handicapped Pupils in Cincinnati.
Pittsburgh University, Pennsylvania, Office of Research and Field Services
EDRS mf,hc

Descriptors: exceptional child research; vocational education; followup studies; handicapped; aurally handicapped; visually handicapped; physically handicapped; manpower development; public education; interviews; Ohio

A followup study of aurally, visually, and physically handicapped graduates of the Cincinnati Public Schools was investigated for use in future educational planning for handicapped children. A random selection of 24 aurally handicapped, 15 visually handicapped and 34 physically handicapped graduates were interviewed. Twenty-nine of the group met the criteria of being employed with a measurable wage and employers of all 29 subjects were interviewed. Findings were indicated by the researchers to show that the majority of the handicapped pupils were capable of successful occupational adjustment to unskilled and semiskilled jobs; however, impractical school experiences were not marketable enough to provide economic stability. Recommendations were made that the administration should assume more responsibility for the occupational placement of disabled pupils; the scope of the pre-vocational training program should be expanded to meet the changing labor market demands; and specific program objectives which pair specific skills with specific job opportunities based on employment situations of former pupils should be created. (CD)

ABSTRACT 31837

EC 03 1837 ED N.A.
Publ. Date Apr 71 5p.
Auxter, David
Learning Disabilities Among Deaf Populations.
EDRS not available
Exceptional Children; V37 N8 P573-7 Apr 1971

Descriptors: exceptional child research; aurally handicapped; learning disabilities; perceptual motor coordination

The investigation attempted to identify perceptual-motor characteristics which might account for, or attribute to, the differences in academic learning ability in deaf populations of comparable CA and IQ. The exploratory study included an investigation of the following dimensions: sensory avenues of kinesthesis and vision, tasks of hand-eye coordination, gross body coordination, motor speed and planning, physical and motor fitness, and the balancing mechanism. The findings of the study indicated that significant differences existed between the groups on tasks involving muscular strength, motor speech, and motor planning, and also on tasks which involved greater integration of neuromuscular control. No significant differences were found between groups on tasks involving the balancing mechanism or sensory utilization. Comments are made on the feasibility of programs to ameliorate reported deficiencies. (Author)

ABSTRACT 31960

EC 03 1960 ED 048 694
Publ. Date 70 85p.
Blake, Gary D.
A Demonstration to Determine the Efficacy of Providing Rehabilitation Services to the Adult Deaf in an Ongoing, Comprehensive Rehabilitation Facility for Handicapped Hearing Persons. Final Report.
Arkansas State Board of Vocational Education, Little Rock
Rehabilitation Services Administration (DHEW), Washington, D.C.
EDRS mf,hc

Descriptors: exceptional child research; aurally handicapped; vocational rehabilitation; program effectiveness; program evaluation; adults; multiply handicapped; underachievers; communication problems; vocational training centers; skill development; Arkansas

To determine the effectiveness, feasibility, and desirability of providing rehabilitation services to the adult deaf in a residential facility for handicapped hearing persons, 131 deaf clients were studied during 3 years. Forty were multiply handicapped while the majority were underachievers. The program was viewed as only desirable to a degree due to a lack of specialized staff and too little individual instruction in vocational skills. During the 3 years, 57 students completed training while 46 terminated before completion; 85% of the total were judged to have made worthwhile personal, social, and vocational gains, but most did not appear to benefit to the extent of their capabilities. Services for the deaf were considered feasible for the length of the study, but questions were raised concerning permanent continuation. The deaf were often short-changed as a result of communication difficulties. Additional data and conclusions are presented. (RJ)

ABSTRACT 32016

EC 03 2016 ED N.A.
Publ. Date May 70 18p.
Williams, Cyril E.
Some Psychiatric Observations on a Group of Maladjusted Deaf Children.
EDRS not available
Journal of Child Psychology and Psychiatry; V2 N1 P1-18 May 1970

Descriptors: exceptional child research; aurally handicapped; emotionally disturbed; emotional problems; surveys; psychological characteristics; family influence

Information presented was obtained from a survey of 51 maladjusted deaf children, ages 5-14 years, who were psychiatrically assessed at the Larchmoor School in England for emotionally disturbed deaf children. Aspects of deafness (degree of hearing loss, etiology, time of diagnosis, etc.), intelligence, social class, causes of maladjustment, parental attitudes and experience, and educational attainments were investigated based on information obtained from social history forms, social adjustment scales, and reports of medical, audiometric, and psychological examinations. Psychiatric disorders found were similar to those encountered in normal children or those with other handicaps. Few children had intelligible speech and in most there was marked educational retardation. Early diagnosis of deafness was related to a lower incidence of speaking children than when diagnosis was made after the age of 2. Most subjects had severely disturbed home backgrounds, particularly those with anti-social disorders, but rarely was this the case with psychotic children. Few had neurotic disorders, since apparently the school is mainly used for children who disturb others. Six brief case studies are appended. (KW)

ABSTRACT 32289

EC 03 2289 ED N.A.
Publ. Date May 71 5p.
Harrison, Robert J.; Phillips, Betty Jane

Observations on Hearing Levels of Preschool Cleft-Palate Children.
EDRS not available
Journal of Speech and Hearing Disorders; V36 N2 P252-6 May 1971

Descriptors: exceptional child research; speech handicapped; cleft palate; hearing loss; auditory perception

Pure-tone audiometry was performed on a monthly basis to a small group of preschool-aged cleft palate children. The incidence of hearing loss in the group ranged from 25 to 71% from month to month. Further inspection of the data, however, indicates that all of the children experienced a significant hearing loss at some time during the study period. The lack of overt signs of hearing loss in the study group suggests that professional monitoring of the hearing levels may be necessary to assure optimum habilitation procedures. (Author)

ABSTRACT 32415

EC 03 2415 ED N.A.
Publ. Date Jun 71 3p.
Meadow, Kathryn P.; Schlesinger, Hilde

The Prevalence of Behavioral Problems in a Population of Deaf School Children.
EDRS not available
American Annals of the Deaf; V116 N3 P346-8 Jun 1971

Descriptors: exceptional child research; deaf; behavior problems; residential schools; aurally handicapped; emotionally disturbed; state schools; mental health

A survey of behavioral problems was undertaken at a state residential school for the deaf. Teachers and counselors were asked to identifiy those students who were severely emotionally disturbed or exhibited behavior which demanded a disproportionate share of caretakers' time. Among the school population 12% were considered to be emotionally disturbed (five times greater than estimates for the general school population); an additional 20% were considered to be mildly disturbed (three times greater than expected). An informal census of administrators of day programs for the deaf indicated that proportions of students in both categories were approximately the same as those found in the residential school. It was concluded that the need for additional mental health services for deaf children far exceeds those which are available. (Author)

ABSTRACT 32420

EC 03 2420 ED N.A.
Publ. Date Jun 71 10p.
Greenberg, Bernard L.; Greenberg, Sally H.

The Measurement of College Potential in the Hearing Handicapped.
EDRS not available
American Annals of the Deaf; V116 N3 P372-81 Jun 1971

Descriptors: exceptional child research; aurally handicapped; college admission; predictive measurement; longitudinal studies; testing; Gallaudet

In assessing applicants for admission, Gallaudet must employ measuring devices different from those normally used to select college students. The Gallaudet Entrance Examination battery consists of a broad range of tests (some commercial, and some developed for use with the deaf). A longitudinal study (correlating test scores and other variables with grade point average and survival) was conducted on the class entering in 1965 and cross-validated on the class entering in 1966. Findings were shown to indicate a high degree of predictive validity for tests in writing and vocabulary with grade point average and survival and an unusually strong relationship between motivation and survival. A further study of the relationship between tests and performance in specific major areas reveals significant factors which were considered as potentially useful in academic counseling. It was concluded that the measurement instruments provide ample information for good decision-making. (Author)

ABSTRACT 32424

EC 03 2424 ED 050 539
Publ. Date Jun 70 42p.
Additional Handicapping Conditions, Age at Onset of Hearing Loss, and Other Characteristics of Hearing Impaired Students--United States 1968-69: Data from the Annual Survey of Hearing Impaired Children and Youth.
Gallaudet College, Washington, D. C., Office of Demographic Studies
Office of Education (DHEW), Washington, D. C.
EDRS mf,hc
Gallaudet College Bookstore, Gallaudet College, Washington, D. C. 20002 ($1.00).

Descriptors: exceptional child research; aurally handicapped; demography; national surveys; statistical data; auditory perception; age groups; sex differences

Data contained in the report were collected by the Annual Survey of Hearing Impaired Children and Youth on 25,363 hearing impaired children enrolled in participating special education programs during the 1968-69 school year. Data describe the following characteristics of such children: additional handicapping conditions, age at onset of hearing loss, audiometric findings on hearing threshold levels, age, and sex. Seventy-nine schools and 63 special classes participated in the survey. The students for whom data are presented represent about one half of the total number of hearing impaired students receiving special educational services. In addition to presenting detailed statistical tables, qualifications and limitations of the data are pointed out. (KW)

ABSTRACT 32820

EC 03 2820 ED N.A.
Publ. Date Apr 71 12p.
Carruth, Kathryn J. and Others

Possible Effects of Integration of the Deaf Within a Typical Vocational School Setting.
EDRS not available
Journal of Rehabilitation of the Deaf; V4 N4 P30-41 Apr 1971

Descriptors: exceptional child research; aurally handicapped; regular class placement; peer relationship; deaf; peer acceptance; vocational schools; employment potential

The purpose of the study was to examine both the hearing and deaf person's views of class integration in regard to the deaf person's job potentialities and the degree of social relationship. Three classes that had both deaf and hearing students were tested. Hearing students in the experimental group were noted to have checked more occupations listed in the test than the hearing in the control group. The deaf in the control group were found to have checked more occupations than the deaf in the integrated classes (experiemental group). In regard to the degree of social relationship, the experimental deaf group was noted as being closer than the control deaf group. Researchers concluded that classroom association seemed to be a factor in increasing a deaf person's view of his acceptance by a normal hearing population. A decrease of job potentialities was seen by those deaf students in integrated classes. One of the reasons speculated upon was that a deaf student's contact with normal hearing students may produce a more realistic and limiting view of the number of occupations a deaf person could perform. (CD)

ABSTRACT 33174

EC 03 3174 ED 054 554
Publ. Date Jun 71 42p.
Summary of Selected Characteristics of Hearing Impaired Students, United States: 1969-70.
Gallaudet College, Washington, D. C., Office of Demographic Studies
EDRS mf,hc
Gallaudet College Book Store, Washington, D. C. 20002 ($1.00).

Descriptors: exceptional child research; aurally handicapped; educational programs; enrollment trends; incidence; national surveys; statistical data; demography

A survey of hearing impaired children and youth in the United States for the school year 1969-70 was conducted. One-dimensional summaries of selected characteristics for 32,285 students enrolled in participating special education programs for the hearing impaired were presented. Discussion of data highlights was followed by detailed tables that describe the following variables: number and percentage distribution of students enrolled in participating special educational programs for the hearing impaired by states, age, hearing threshold levels, age at onset of hearing loss, age hearing loss discovered, history of parental deafness before age six, hearing aid use, and age started formal education prior to age six; and among students enrolled in partici-

pating special educational programs for the hearing impaired, the number and rate per 1,000 students of additional handicapping conditions and probable causes of hearing loss. Appended are a description of the annual survey, basic data and preschool data forms used, and a list of programs participating in the annual survey. (CB)

ABSTRACT 33236

EC 03 3236 ED N.A.
Publ. Date Oct 71 11p.
Owrid, H. L.

Studies in Manual Communication with Hearing Impaired Children.

EDRS not available
Volta Review; V73 N7 P428-38 Oct 1971

Descriptors: exceptional child research; aurally handicapped; manual communication; research design; research reviews (publications); fingerspelling; Rochester method

Reviewed and analyzed are three sets of studies dealing with manual communication and hearing impaired children. Focused upon are the research subjects and design and the significance of each study. Covered are: the study by Marshall S. Hester (1964) on the use of the Rochester method of communication (speech used together with single-handed fingerspelling) with very young students at the New Mexico School for the Deaf; the study by Stuckless and Birch (1966) on the influence of early manual communication upon linguistic development of deaf children, in which scholastic achievement of deaf children of deaf parents was found to be slightly better than that of deaf children of hearing parents; and the Stephen P. Quigley studies (1969) on manual communication, specifically the Rochester method. Pointed out are some common features of these studies and some considerations which cause the author to doubt whether manual communication does best prepare hearing impaired children for the hearing world, as the studies would imply. (KW)

AUTHOR INDEX

Altshuler, Kenneth Z 10082.
Arkebauer, Herbert J 21154.
Asp, Carl W 30018.
Auxter, David 31837.
Babbini, Barbara E 31473.
Balow, Bruce and Others 31579.
Birch, Jack W 21231.
Blake, Gary D 31960.
Boothroyd, Arthur 30584.
Brill, Richard G 30778.
Brill, Richard G and Others 21491.
Brown, Donald W 23561.
Brown, Jerome 21154.
Byrne, Margaret C 31178.
Calvert, Donald R 30347.
Carruth, Kathryn J and Others 32820.
Chovan, William L 31366.
Collins, James L 21489, 21604, 30851.
Craig, Helen B 11264, 22656.
Craig, William N 21489, 21604, 30851.
Doehring, Donald G 11437.
Eachus, Todd 31570.
Fiedler, Miriam Forster 23440.
Fisch, L, Ed 31163.
Fitzgerald, Mary Dale and Others 23611.
Flynn, Pauline T 31178.
Frisina, D Robert 23542.
Furth, Hans G 31285.
Genäile, Augustine 30607.
Giangreco, C Joseph 22763.
Greenberg, Bernard L 32420.
Greenberg, Sally H 32420.
Griffing, Barry L 20973.
Guilfoyle, George R 31574-31575, 31746.
Gwaltney, Thomas Larry 30014.
Hanson, Grace Haen and Others 21471.
Harrelson, Orvis A and Others 11747.
Harrison, Robert J 32289.
Haspiel, George S 10644.
Hayes, Gordon M 20973.
Hiskey, Marshall S 11154.
Horton, Kathryn B 22722.
Johnson, Donald D 23542.
Joiner, Lee M and Others 21827.
Karlsen, Bjorn 30512.
Koh, Soon 30087.
Lach, Rosemary and Others 30086.
Lerman, Alan M 31746.
Lerman, Jay 10547, 23590.
Liechti, Carroll D 30014.
Lisensky, Robert 10310.
Lowell, Edgar L 11519.
Luterman, David M 10928, 22738.
MacGinitie, Walter H, Ed 20974.
Marshall, William A 31196.
Marshall, William J A 31472.
Matkin, Noel D 22945, 30098.
McConnell, Freeman 22722.
McConnell, Freeman and Others 22870.
McGettigan, James F 31366.
Meadow, Kathryn P 11042, 32415.
Neuhaus, Maury 20287.
Neyhus, Arthur I and Others 22546.
Olsen, Wayne O 22945.
Owrid, H L 33236.
Phillips, Betty Jane 32289.
Pickett, J M, Ed 11272.
Power, D J 30350.
Prisuta, Richard 31781.
Pronovost, Wilbert and Others 31027.
Quigley, Stephen P 20344, 21474, 21985, 30838, 31472-31473.
Quigley, Stephen P. and Others 10561, 22873.
Quigley, Stephen P, Ed 22959.
Rainer, John D 10082.
Rainer, John D, Ed 10206.
Rainer, John D, Ed and Others 22598.
Rapin, Isabelle and Others 30349.
Redell, Rayford C 30347.
Restaino, Lillian C R 11699, 31251.
Rodda, Michael 31375.
Rosenstein, Joseph 11437.
Rosenstein, Joseph, Ed 20974.
Ross, Mark 10547, 23590.
Rush, Mary Lou 20505.
Scherer, Patricia A 23565.
Schlesinger, Hilde S 32415.
Siegenthaler, Bruce M 10644.
Silver, Rawley A 31061.
Silverman-Dres, Toby 31574-31575.
Socher, Penny A 31251.
Stewart, Joseph L 11539.
Stuckless, E Ross 21231.
Thomure, F Eugene 30838.
Tillman, Tom W and Others 31184.
Vaughn, Gwenyth R 22403.
Vernon, McCay 11349, 11553, 12043, 30087, 31744.
Voneiff, Patricia 30607.
White, Alfred Henry, Jr 31193.
Williams, Cyril E 32016.
Withrow, Frank B 10310, 23561.

SUBJECT INDEX

Ability Identification 21827.
Abstract Reasoning 31061.
Abstraction Levels 11699.
Academic Ability 21474.
Academic Achievement 10561, 11042, 11553, 12043, 20983, 21471, 21827, 21985, 22738, 22763, 22873, 23440, 30087, 30838, 31473.
Achievement 10206, 10561, 21231.
Achievement Tests 20983, 22763.
Acoustics 20973.
Adjustment (to Environment) 10561, 11264, 21491.
Administrator Evaluation 21474.
Adolescents 10082, 10310, 20287, 31579, 31746.
Adults 10082, 22403, 22598, 31960.
Age Differences 11349, 11437, 20974, 20983, 21489.
Age Groups 30607, 32424.
Ancillary Services 22403, 22870.
Aphasia 31061.
Aptitude Tests 11154, 21827, 22763.
Arkansas 31960.
Art 31061.
Art Education 31061.
Articulation (Speech) 11539, 31193.
Association (Psychological) 20974.
Associative Learning 20974.
Attention Span 22656.
Audio Equipment 20973.
Audiovisual Aids 21154.
Audiovisual Instruction 23561.
Auditory Perception 10547, 10644, 11272, 22546, 23590, 30098, 31178, 31184, 32289, 32424.
Auditory Tests 10644, 11272, 11553, 11747, 22722, 23440, 23542, 23611, 30098, 30349, 31163, 31178, 31184.
Auditory Training 11539, 22722, 30018, 31027.
Aural Stimuli 30098, 31366.
Aurally Handicapped 20973.
Aurally Handicapped 10082, 10206, 10310, 10547, 10561, 10644, 10928, 11042, 11154, 11264, 11272, 11349, 11437, 11519, 11539, 11553, 11699, 11747, 12043, 20287, 20344, 20505, 20974, 20983, 21154, 21231, 21471, 21474, 21489, 21491, 21604, 21827, 21985, 22403, 22546, 22598, 22656, 22722, 22738, 22763, 22870, 22873, 22945, 22959, 23440, 23542, 23561, 23565, 23590, 23611, 30014, 30018, 30086-30087, 30098, 30347, 30349-30350, 30512, 30584, 30607, 30778, 30838, 30851, 31027, 31061, 31163, 31184, 31193, 31196, 31251, 31285, 31366, 31375, 31472-31473, 31570, 31574-31575, 31579, 31744, 31746, 31781, 31837, 31960, 32016, 32415, 32420, 32424, 32820, 33174, 33236.
Automation 11272.
Basic Reading 30512.
Behavior Change 10928, 21491, 31570.
Behavior Patterns 31746.
Behavior Problems 32415.
Bekesy Audiometry 23542.
Bender Gestalt Test 11553.
Boone Infant Speech and Language Development Scale 11519.
Bureau of Education for the Handicapped 31472.
Case Studies 10561.
Case Studies (Education) 10082, 21491, 23440.
Child Development 23440.
Childhood 31251.
Classroom Observation Techniques 21489, 21604, 30851.
Cleft Palate 32289.

Clinical Diagnosis 10082, 21491, 30098.
Clinics 22870.
Cloze Procedure 31196.
Cognitive Ability 11042.
Cognitive Development 22959.
Cognitive Processes 11699, 31285.
College Admission 10561, 20344, 32420.
College Choice 21474.
College Students 10561, 21474.
Communication Problems 22598, 31746, 31960.
Communication Skills 12043, 21489, 21604, 21985, 22403, 30014, 30087, 30851, 31473.
Communication (Thought Transfer) 11042, 21231, 21489, 21604.
Complexity Level 31472.
Conference Reports 11272, 31163.
Context Clues 31196.
Correlation 10547, 10644.
Counseling 10928, 20344.
Crime 10206.
Curriculum 10310.
Curriculum Design 10310.
Curriculum Development 10310, 31251.
Curriculum Evaluation 10310, 31251.
DIP 10644.
Day Schools 22873, 30607, 31193.
Deaf 10082, 10206, 10310, 10547, 10561, 10928, 11042, 11154, 11264, 11272, 11349, 11437, 11519, 11553, 20287, 20983, 21471, 21985, 22546, 22722, 22763, 22870, 22945, 23440, 23542, 30086-30087, 31061, 31285, 31570, 31746, 32415, 32820.
Demography 10206, 30607, 32424, 33174.
Demonstration Projects 10082.
Diagnostic Screening Form for Detection of Neurological Impairment in Deaf 11553.
Discrimination By Identification of Pictures Test 10644.
Early Childhood Education 11539, 22722, 22738, 30014, 30607.
Educational Background 10206, 20344.
Educational Diagnosis 31744.
Educational Needs 22870, 23440.
Educational Programs 10310, 22870, 23565, 30607, 33174.
Educational Status Comparison 22873.
Educational Technology 22945.
Electromechanical Aids 11272, 20973.
Elementary and Secondary Education Act Title I 31251.
Elementary Education 10310.
Emotional Adjustment 11553, 20287.
Emotional Development 23440.
Emotional Problems 32016.
Emotionally Disturbed 21491, 22598, 32016, 32415.
Employment 12043.
Employment Potential 32820.
Enrollment Trends 33174.
Environmental Influences 11264.
Equipment 20973.
Equipment Evaluation 20973.
Etiology 10206, 11349, 11553, 31163, 31744.
Evaluation 10310, 10928, 21827.
Evaluation Methods 10561, 10644, 23542, 30350, 31027.
Exceptional Child Education 31251.
Exceptional Child Research 10082, 10206, 10310, 10547, 10561, 10644, 10928, 11042, 11154, 11264, 11272, 11349, 11437, 11519, 11539, 11553, 11699, 11747, 12043, 20287, 20344, 20505, 20973-20974, 20983, 21154, 21231, 21471, 21474, 21489, 21491 21604, 21827, 21985, 22403, 22546, 22598, 22656, 22722, 22738, 22763, 22870, 22873, 22945, 22959, 23440, 23542, 23561, 23565, 23590, 23611, 30014, 30018, 30086-30087, 30098, 30347, 30349-30350, 30512, 30584, 30607, 30778, 30838, 30851, 31027, 31061, 31163, 31178, 31184, 31193, 31196, 31251, 31285, 31366, 31375, 31472-31473, 31570, 31574-31575, 31579, 31744, 31746, 31781, 31837, 31960, 32016, 32289, 32415, 32420, 32424, 32820, 33174, 33236.
Experimental Programs 30014.
Expressive Language 21604.
Family Influence 32016.
Family Problems 22598.
Family (Sociological Unit) 10206, 11042.
Fathers 20287.
Films 23561.
Finger Spelling 21231, 21474, 21985, 30087, 31473, 33236.
Flanders Category System 30851.
Followup Studies 31781.
Foreign Countries 22959, 31375.
Gallaudet College 10561, 32420.
Genetics 10206, 31163.
Grades (Scholastic) 10561.
Graduate Surveys 10561, 31375.
Great Britain 31375.
Group Discussion 10928.
Group Structure 22873.
Group Therapy 10082, 11539.
HNTLA 11154.
Handicapped 31781.
Hard of Hearing 10547, 10561, 10644, 11272, 11349, 11539, 11553, 20983, 22870, 23440, 30838.
Hearing Aids 11272, 11539, 20973, 22722, 22945, 30018, 30584, 31184.
Hearing Loss 10644, 11272, 11349, 11553, 22546, 22722, 23611, 30347, 30349, 30607, 31375, 32289.
Hearing Therapy 10928.
Heredity 11349, 31744.
Hiskey Nebraska Test of Learning Aptitude 11154, 22763.
Historical Reviews 31285.
Honeywell University of Minnesota Teaching Device HUMID 30512.
Hospitals 10082, 10206.
Identification 10547, 22870, 30838.
Illinois ommunication Scale 23561.
Incidence 11349, 31163, 31744, 33174.
Infancy 22722, 22738, 30086, 30347, 30349, 31163.
Infectious Diseases 11349.
Information Dissemination 10310.
Instructional Materials 10310, 21154, 23561.
Intellectual Development 23611.
Intelligence Differences 30778.
Intelligence Level 11437, 12043, 11553, 22546, 31375.
Intelligence Quotient 30778.
Intelligence Tests 10206, 11154, 21827.
Interaction Process Analysis 21489, 30851.
Interpersonal Competence 11042.
Interviews 31781.
Job Placement 10082, 22873.
John Tracy Clinic 11519.
Kansas 30014.
Kindergarten 30014.
Language Ability 20505, 20974, 21231, 21471, 21474, 21985, 22546, 31472-31473, 31746.
Language Development 10928, 11519, 11539, 21231, 21985, 22722, 22738, 22959, 23440, 23561, 23565, 31285, 31472.
Language Handicapped 20505.
Language Instruction 11519, 21154, 22959.
Language Master 21154.
Language Research 22959, 31472.
Language Tests 21231.
Learning Characteristics 23611.
Learning Disabilities 31251, 31837.
Linguistics 11699.
Lipreading 11042, 11272, 21231, 22546, 23561, 23565, 31473.
Longitudinal Studies 23440, 31473, 32420.
Loop Induction Systems 20973, 22945.
Manpower Needs 31781.
Manual Communication 11042, 21474, 21489, 21604, 21985, 30087, 30778, 33236.
Mathematics 21491, 22763, 31473.
Maturation 11042.
Measurement Techniques 23590, 30778.
Mediation Theory 31366.
Medical Evaluation 10082, 31744.
Medical Treatment 10082.
Memory 11699, 22546, 31366.
Meningitis 31744.
Mental Health 10082, 10206, 22598, 32415.
Mental Health Clinics 10082.
Mental Health Project for the Deaf 10206.
Mental Illness 10082, 12043.
Metropolitan Reading Test 31579.
Minimally Brain Injured 11553.
Modified Ascending Bekesy 23542.
Mother Attitudes 20287.
Motor Development 22546.
Multiply Handicapped 11553, 22403, 22959, 23440, 31744, 31960.
Multisensory Learning 11539.
National Surveys 20983, 30607, 31375, 32424, 33174.
Neurological Defects 11553, 22546.
New Developmental Reading Test 31579.
New York 10206, 31251.
Nonverbal Communication 22546.
Nonverbal Tests 10547.
Nursery Schools 11539, 22738.
Nursing 30347.
Occupational Therapy 10082.
Occupations 10561, 21474, 22873.
Ohio 31781.
Operant Conditioning 22656.
Oral Communication 21489, 21604, 21985, 30087, 30778.
Paired Associate Learning 20974.
Parent Attitudes 10928, 11519, 20287, 21491, 22722, 22738, 23440.
Parent Child Relationship 20287, 30778.
Parent Counseling 11539, 21491.
Parent Education 10928, 11519, 22722, 22738.
Parent Role 10928, 11539, 22722, 22738.
Peer Acceptance 32820.
Peer Relationship 11264, 32820.
Perception 21471.
Perception Tests 21471.
Perceptual Motor Coordination 21471, 31366, 31837.
Performance Factors 30838.
Performance Tests 30778.
Personal Adjustment 21231.
Personality 11264, 22598.
Personality Assessment 11264.

Personality Development 31375.
Phonology 30086.
Physically Handicapped 31781.
Positive Reinforcement 20505.
Prediction 22763.
Predictive Measurement 21827, 22763, 32420.
Premature Infants 11349, 11553, 31744.
Preschool Children 10928, 11519, 11539, 23542, 30018, 30098.
Prevocational Education 31746.
Primary Grades 31178.
Professional Occupations 10561.
Professional Personnel 22870.
Prognostic Tests 22763.
Program Descriptions 10082, 23561.
Program Development 31251.
Program Effectiveness 31960.
Program Evaluation 10082, 10310, 11519, 11539, 21474, 21491, 22403, 31027, 31960.
Programed Instruction 11272, 20505, 21154, 30512.
Programed Materials 20505, 30512.
Psychiatric Services 10082, 10206, 22598.
Psycholinguistics 21471.
Psychological Characteristics 12043, 31375, 32016.
Psychological Evaluation 10206, 22598, 31285, 31744.
Psychological Services 10082.
Psychology 21231.
Psychotherapy 10206, 22598.
Public Education 31781.
Public Schools 22870.
Questionnaires 10561, 20344, 22873.
Rating Scales 11519.
Reading 22763, 23565, 30512.
Reading Ability 11699, 21491, 21985, 31178, 31196, 31473.
Reading Comprehension 22546, 31196, 31579.
Reading Difficulty 11699.
Reading Materials 30512.
Reading Skills 11699, 21231, 31579.
Reading Tests 21471, 31574-31575, 31579.
Recall (Psychological) 31366.
Receptive Language 21604.
Regular Class Placement 22403, 30838, 32820.
Reinforcement 21491, 22656, 31570.
Remedial Programs 31251.
Research Design 33236.
Research Needs 10082, 10206, 22598.
Research Reviews (Publications) 12043, 21474, 33236.
Residential Schools 10310, 21474, 22873, 23440, 30607, 31193, 32415.
Retention 20505.
Rochester Method 21985, 33236.
Rubella 11349, 23611, 31744.
Schizophrenia 10206.
School Statistics 30607.
Screening Tests 11747, 30347.
Secondary Education 10310.
Self Concept 11264, 21827.
Self Esteem 11264.
Self Evaluation 11264, 21827.
Sensory Aids 11272, 30584.
Sensory Integration 22546, 23542.
Sensory Training 30014, 30584.
Sentence Structure 31472.
Serial Ordering 11699.
Sex Differences 23440, 31473; 32424.
Sex Education 10310.
Siblings 10206.
Sight Vocabulary 11437.
Sign Language 21231, 21985, 30087.
Skill Development 21231, 31960.
Social Adjustment 10561, 21231, 30087, 31375.
Social Attitudes 31375.
Social Influences 12043.
Socialization 10206.
Socioeconomic Background 31375.
Socioeconomic Influences 31178.
Socioeconomic Status 20344, 31375.
Sociometric Techniques 11264.
Special Classes 30014.
Special Schools 22870.
Speech Clinics 11519.
Speech Evaluation 31193.
Speech Handicapped 11272, 32289.
Speech Handicaps 31061, 31193.
Speech Improvement 10928.
Speech Pathology 11272.
Speech Skills 11042, 11272, 11539, 21231, 30086, 31473.
Speech Therapy 11272.
Staff Orientation 10928.
Standards 21474.
Stanford Achievement Tests 20983.
State Agencies 22870.
State Schools 10310, 32415.
State Surveys 10206.
Statistical Data 10206, 20983, 22598, 30607, 31375, 32424, 33174.
Stimulus Behavior 30349.
Student Evaluation 21491, 30838.
Student Placement 23440.
Student Teacher Relationship 21489, 21604, 30851.
Success Factors 22546.
Supervision 20973.
Supervisors 21474.
Surveys 10206, 21474, 22873, 32016.
Syntax 22959, 31472.
TIP 10644.
Tactual Perception 23542.
Tape Recordings 30098.
Teacher Attitudes 20973.
Teacher Education 10310.
Teacher Evaluation 30350.
Teaching Machines 21154, 30512.
Teaching Methods 11349, 11519, 21489, 21985, 22403, 23561, 23565, 30350, 30512.
Technical Education 22403.
Test Interpretation 10547, 10644, 11264.
Test Reliability 10547, 10644, 11154, 20983.
Test Validity 10644, 11154, 20983.
Testing 10206, 10310, 10547, 10644, 11154, 11264, 11437, 11539, 11699, 11747, 20505, 20974, 23542, 30778, 31579, 32420.
Therapy 31061.
Thought Processes 31285.
Threshold By Identification of Pictures Tests 10644.
Time Factors (Learning) 11437, 31579.
Tracy Correspondence Course 10928.
Tutoring 10928, 11519.
Twins 22598.
Underachievers 31960.
Verbal Ability 22546.
Visible Speech 11272.
Vision Tests 10644, 23590.
Visual Learning 22656.
Visual Perception 11437, 11699, 21471, 22546.
Visual Stimuli 11437, 23590.
Visually Handicapped 31781.
Vocabulary 20974, 31574-31575.
Vocabulary Development 105478 21154, 30086, 31574-31575.
Vocational Adjustment 10206, 22873.
Vocational Education 31781.
Vocational Interests 31375.
Vocational Rehabilitation 31960.
Vocational Schools 31960, 32820.
Word Recognition 10547, 20974, 23590, 31574-31575.
Workshops 10310.
Writing Skills 20505, 21231, 22546, 31472, 31570.
Young Adults 22873.

ERIC DOCUMENT REPRODUCTION SERVICE
LEASCO INFORMATION PRODUCTS, INC.

P.O. Drawer O, Bethesda, Md. 20014

REPORTS

ON-DEMAND ORDER BLANK

BILL TO: _____ SHIP TO: _____

PURCHASE ORDER NO. _____

Detach Here

REPORTS TO BE ORDERED

ITEM	ED Number	Number of Copies MF	Number of Copies HC	PRICE (see reverse)	TOTAL PRICE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
				SUB-TOTAL	
				TAX	
				TOTAL	

☐ TAX NUMBER _____

☐ DEPOSIT ACCT. NUMBER _____

☐ CHARGE (OVER $10.00) _____

☐ CHECK NUMBER _____

HOW TO ORDER

To order ERIC REPORTS include complete information for all order form items. Please print or type all information clearly.

1. Complete "bill to" and "ship to" addresses. Be sure to complete "ship to" address if different from "bill to". A like "ship to" address may be completed as "SAME". Include zip code.

2. Order by printing ED number in designated space. ED accession numbers are listed in Research in Education (RIE). RIE may be purchased from: Superintendent of Documents, GPO, Washington, D.C. 20402.

3. Include number of copies (1, 2, 3, etc.) to be ordered in appropriate space. Use MF space for microfiche copies, use HC space for hard copy (paper). *Check RIE for availability of document in MF and HC.*

4. Include price from the rate schedule. (Refer to price schedule on back.) Prices are also published in current issues of RIE.

5. Some ED numbers represent a series of titles, and will be billed by title, not ED number. A list of applicable ED numbers is available.

6. Extend number of copies and price for total price for each entry.

7. Add items 1 through 15 and insert amount in "Sub-Total" box.

8. Add state sales tax for Illinois and Maryland or check box and cite tax exemption number for Illinois and Maryland only.

9. Add "Sub-Total" and "Tax" and insert amount in "Total" box.

10. Indicate payment method desired. Payment must accompany all orders of $10.00 or less. Make all drafts payable to EDRS.

11. Sign AUTHORIZATION and date order.

12. Include only 15 entries per form. Complete and sign additional forms if required.

13. Quality warranty. LIPCO will replace products returned because of reproduction defects or incompleteness. The quality of the input document is not the responsibility of LIPCO. Best available copy will be supplied.

ERIC DOCUMENT REPRODUCTION SERVICE is operated by Leasco Information Products, Inc. for the U.S. Office of Education.

Orders are filled only from ED accession numbers. Titles are not checked. *Please be sure you have supplied the correct numbers.*

AUTHORIZATION _____ DATE _____

TITLE OR DEPT. _____

***SUBJECT TO ALL TERMS AND CONDITIONS ON REVERSE SIDE OF THIS FORM.**

MAKE ALL DRAFTS PAYABLE TO EDRS

PRICE LIST

Microfiche Copy — Each Title		.65
Hard Copy — Each Title by number of pages:		
Pages:	1 - 100	3.29
	101 - 200	6.58
	201 - 300	9.87
	301 - 400	13.16
	401 - 500	16.45
Each Additional 100 pages or portion thereof.		3.29

1. Book Rate or Library Rate postage is included in above prices.
2. The difference between Book Rate or Library Rate and first class or foreign postage (outside the continental United States) rate will be billed at cost.

TERMS AND CONDITIONS

1. PRICE LIST

The prices set forth above may be changed without notice; however, any price change will be subject to the approval of the U.S. Office of Education Contracting Officer.

2. PAYMENT

The prices set forth above do not include any sales, use, excise, or similar taxes which may apply to the sale of microfiche or hard copy to the Customer. The cost of such taxes, if any, shall be borne by the Customer.

Payment shall be made net thirty (30) days from date of invoice. Payment shall be without expense to LIPCO.

3. REPRODUCTION

Materials supplied hereunder may only be reproduced by not-for-profit educational institutions and organizations; provided however, that express permission to reproduce a copyrighted document provided hereunder must be obtained in writing from the copyright holder noted on the title page of such copyrighted document.

4. CONTINGENCIES

LIPCO shall not be liable to Customer or any other person for any failure or delay in the performance of any obligation if such failure of delay, (a) is due to events beyond the control of LIPCO including, but not limited to, fire, storm, flood, earthquake, explosion, accident, acts of the public enemy, strikes, lockouts, labor disputes, labor shortage, work stoppages, transportation embargoes or delays, failure or shortage of materials, supplies or machinery, acts of God, or acts or regulations or priorities of the federal, state, or local governments, (b) is due to failures of performance of subcontractors beyond LIPCO's control and without negligence on the part of LIPCO, or (c) is due to erroneous or incomplete information furnished by Customer.

5. LIABILITY

LIPCO's liability, if any, arising hereunder shall not exceed restitution of charges.

In no event shall LIPCO be liable for special, consequential, or liquidated damages arising from the provision of services hereunder.

6. WARRANTY

LIPCO MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

7. CHANGES

No waiver, alteration, or modification of any of the provisions hereof shall be binding unless in writing and signed by an officer of LIPCO.

8. DEFAULT AND WAIVER

a. If Customer fails with respect to this or any other agreement with LIPCO to pay any invoice when due or to accept any shipment as ordered, LIPCO may without prejudice to other remedies defer any further shipments until the default is corrected, or cancel this Purchase Order.

b. No course of conduct nor any delay of LIPCO in exercising any right hereunder shall waive any rights of LIPCO or modify this Agreement.

9. GOVERNING LAW

This Agreement shall be construed to be between merchants. Any question concerning its validity, construction, or performance shall be governed by the laws of the State of New York.

ERIC DOCUMENT REPRODUCTION SERVICE
LEASCO INFORMATION PRODUCTS, INC.

P.O. Drawer O, Bethesda, Md. 20014

REPORTS

ON-DEMAND ORDER BLANK

BILL TO: _____ **SHIP TO:** _____

PURCHASE ORDER NO. _____

REPORTS TO BE ORDERED

ITEM	ED Number	Number of Copies MF	Number of Copies HC	PRICE (see reverse)	TOTAL PRICE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
☐ TAX NUMBER _____				SUB-TOTAL	
☐ DEPOSIT ACCT. NUMBER _____				TAX	
☐ CHARGE (OVER $10.00) _____					
☐ CHECK NUMBER _____				TOTAL	

HOW TO ORDER

To order ERIC REPORTS include complete information for all order form items. Please print or type all information clearly.

1. Complete "bill to" and "ship to" addresses. Be sure to complete "ship to" address if different from "bill to". A like "ship to" address may be completed as "SAME" Include zip code.

2. Order by printing ED number in designated space. ED accession numbers are listed in Research in Education (RIE). RIE may be purchased from: Superintendent of Documents, GPO, Washington, D.C. 20402.

3. Include number of copies (1, 2, 3, etc.) to be ordered in appropriate space. Use MF space for microfiche copies, use HC space for hard copy (paper). *Check RIE for availability of document in MF and HC.*

4. Include price from the rate schedule. (Refer to price schedule on back.) Prices are also published in current issues of RIE.

5. Some ED numbers represent a series of titles, and will be billed by title, not ED number. A list of applicable ED numbers is available.

6. Extend number of copies and price for total price for each entry.

7. Add items 1 through 15 and insert amount in "Sub-Total" box.

8. Add state sales tax for Illinois and Maryland or check box and cite tax exemption number for Illinois and Maryland only.

9. Add "Sub-Total" and "Tax" and insert amount in "Total" box.

10. Indicate payment method desired. Payment must accompany all orders of $10.00 or less. Make all drafts payable to EDRS.

11. Sign AUTHORIZATION and date order.

12. Include only 15 entries per form. Complete and sign additional forms if required.

13. Quality warranty. LIPCO will replace products returned because of reproduction defects or incompleteness. The quality of the input document is not the responsibility of LIPCO. Best available copy will be supplied.

Detach Here

ERIC DOCUMENT REPRODUCTION SERVICE is operated by Leasco Information Products, Inc. for the U.S. Office of Education.

Orders are filled only from ED accession numbers. Titles are not checked. *Please be sure you have supplied the correct numbers.*

AUTHORIZATION _____ DATE _____

TITLE OR DEPT. _____

**SUBJECT TO ALL TERMS AND CONDITIONS ON REVERSE SIDE OF THIS FORM.*

MAKE ALL DRAFTS PAYABLE TO EDRS

PRICE LIST

Microfiche Copy — Each Title		.65
Hard Copy — Each Title by number of pages:		
Pages:	1 - 100	3.29
	101 - 200	6.58
	201 - 300	9.87
	301 - 400	13.16
	401 - 500	16.45
Each Additional 100 pages or portion thereof.		3.29

1. Book Rate or Library Rate postage is included in above prices.
2. The difference between Book Rate or Library Rate and first class or foreign postage (outside the continental United States) rate will be billed at cost.

TERMS AND CONDITIONS

1. PRICE LIST

The prices set forth above may be changed without notice; however, any price change will be subject to the approval of the U.S. Office of Education Contracting Officer.

2. PAYMENT

The prices set forth above do not include any sales, use, excise, or similar taxes which may apply to the sale of microfiche or hard copy to the Customer. The cost of such taxes, if any, shall be borne by the Customer.

Payment shall be made net thirty (30) days from date of invoice. Payment shall be without expense to LIPCO.

3. REPRODUCTION

Materials supplied hereunder may only be reproduced by not-for-profit educational institutions and organizations; provided however, that express permission to reproduce a copyrighted document provided hereunder must be obtained in writing from the copyright holder noted on the title page of such copyrighted document.

4. CONTINGENCIES

LIPCO shall not be liable to Customer or any other person for any failure or delay in the performance of any obligation if such failure of delay, (a) is due to events beyond the control of LIPCO including, but not limited to, fire, storm, flood, earthquake, explosion, accident, acts of the public enemy, strikes, lockouts, labor disputes, labor shortage, work stoppages, transportation embargoes or delays, failure or shortage of materials, supplies or machinery, acts of God, or acts or regulations or priorities of the federal, state, or local governments, (b) is due to failures of performance of subcontractors beyond LIPCO's control and without negligence on the part of LIPCO, or (c) is due to erroneous or incomplete information furnished by Customer.

5. LIABILITY

LIPCO's liability, if any, arising hereunder shall not exceed restitution of charges.

In no event shall LIPCO be liable for special, consequential, or liquidated damages arising from the provision of services hereunder.

6. WARRANTY

LIPCO MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

7. CHANGES

No waiver, alteration, or modification of any of the provisions hereof shall be binding unless in writing and signed by an officer of LIPCO.

8. DEFAULT AND WAIVER

a. If Customer fails with respect to this or any other agreement with LIPCO to pay any invoice when due or to accept any shipment as ordered, LIPCO may without prejudice to other remedies defer any further shipments until the default is corrected, or cancel this Purchase Order.

b. No course of conduct nor any delay of LIPCO in exercising any right hereunder shall waive any rights of LIPCO or modify this Agreement.

9. GOVERNING LAW

This Agreement shall be construed to be between merchants. Any question concerning its validity, construction, or performance shall be governed by the laws of the State of New York.